

American Farmer

AND SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." Virg.

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From the New England Farmer.

EIGHTH AGRICULTURAL MEETING AT THE STATE HOUSE.

(Concluded.)

Subject.—Fruit and Fruit Trees.

Mr. B. V. French remarked that the lovers of good fruit need not hesitate about planting trees, even if their soil was not the very best. It might be raised on almost any soil, however rugged or sterile. Fruit of the finest quality had been raised even at Nahant. Many suppose that fruit trees would not flourish where there had been an old orchard. This was true to some extent: if all that is essential for the growth of the trees had been exhausted in the soil, it would be necessary to renovate it by applying potash and other substances which enter into the composition of the tree. He said he had a fine orchard which was in grass ground that had never been tilled, which produced good crops of Porters, Greenings, and other varieties of fine quality; the ground was kept in good heart by surface manuring; the trees were dug about, kept free of grass a few feet around them, and well pruned. To keep off borers, he washed the trunk of the trees with potash water, or soap, and sometimes lime was used for the same purpose. He had set out another orchard on a seven-acre lot, in which he went more methodically to work. He first took out the stones and built a wall about it, plowed, rolled, and harrowed it lightly. The trees had been procured the fall previous, and laid in by the heels. Having fixed the proper position for each tree, he commenced planting them out in the spring, on the sod, without digging any holes, unless the roots were long and difficult to manage, when a little digging was necessary; good loam was then brought to the roots, so as to cover them: he lost only three trees in the lot. As to staking the trees, he did not approve of the plan; thought they did better without, unless the tree was crooked: in that case, a stake should be put down, and the tree tied up close to it, putting round sufficient matting, or something else, so that there could be no chafing; this orchard has done well, but if it had the benefit of a subsoil plowing before planting, would no doubt have done better. The subsoil plow has since been used with good results in this same orchard, plowing and stirring up the ground as near the trees as was judged safe.

Mr. French remarked that a neighbor of his considered it a good day's work for four men to set out ten trees, and thought it necessary to trench the ground two feet deep, and ten in diameter. Trees planted in ground thus prepared, would thrive well, undoubtedly. Mr. F. thought so much labor unnecessary; the subsoil plow was about as effectual as trenching. He found that trees do well when planted near walls, but he thought better to plant at some distance from them. When it is perceived that the foliage of a tree looks sickly, and the ends of the limbs begin to decay, it indicates a want of potash: this should be applied to renovate the soil.

Last year, after preparing a very stony four-acre lot of land, by taking off the stones and filling up the stone holes, he plowed and subsoiled it—then rolled, and harrowed it lightly; a substantial stone wall enclosed the field. First, he set a row of cherries, two rods from each other, near the wall: then two rods parallel from them, a row of apple trees—between the rows of apples a row of pears—

and between the apples and pears, a row of peach trees. He avoided setting deep. He cut the peach trees down to 8 or 10 inches above the budding. Although the season was a very trying one, on account of the long continued drought, most of the trees did well. He lost some pear trees, but accounted for this by the fact, that these trees were of very vigorous growth and the wood was not fully matured. He has set out peach trees when in bloom, and thought they did better than when set out before the buds began to start. Peach trees should be kept low, and made to branch out near the ground: unless proper attention was paid to them, they were apt to grow straggling and unsightly.

In setting out an orchard, no one has good reason to expect success, unless it is protected from cattle, which will seriously injure the trees by rubbing against, eating, and breaking them down. Pruning should be done when the tree is young. When it is deferred until the tree is old, and large limbs are amputated, the wounds are so large they will not heal over, and by exposure to the weather, will soon begin to rot, and the limb eventually become hollow. A young orchard requires constant attention. In selecting fruit trees, it was often necessary to consult the nurseryman—but his opinions were not always infallible: they were liable to mistakes. To prevent disappointment, it was a good plan to have a good supply of thrifty stocks always on hand for budding: the buds should in all cases be taken from bearing trees. He thought it best to bud when stocks were young. In regard to the varieties of fruit to be selected, every farmer must be his own judge. We have now a good succession of fine apples, and the same may be said of pears. This plum, he said, did better near the sea-shore and in the city (Boston,) than it did farther back in the country. A large regard had been offered by the Horticultural Society for some mode of destroying the Curculio, but as yet nothing satisfactory had been presented. It is a very destructive enemy, and its depredations are discouraging to cultivators of this fruit. He had pretty much come to the conclusion that, with the exception of the caterpillar, which might easily be destroyed by one of "Pickering's brushes," it was about as well to let the insects remain undisturbed, and commit their depredations in quiet—for he had found all attempts to banish or destroy them, useless and futile. He said, in conclusion, that industry and perseverance were indispensable in establishing good and flourishing orchards.

Mr. John C. Gray, of Boston, said he had been engaged in agriculture for the last 20 years; but his attention had been directed in a particular manner to the cultivation of fruit trees, in which he had been deeply interested. It has been a question whether the spring or fall was preferable for transplanting. He had been in the habit of setting out in the spring, and thought that to be the most suitable time. He has suffered much from drought after planting, but found that by placing moss around the trees, the difficulty was in a measure obviated. He said, in England the climate was so different from ours, that it might be best there to plant in the fall, as the roots, perhaps, would grow—but not with us.

Another question was, whether the ground for an orchard should be broken up and kept in cultivation, or suffered to lie in grass. No doubt the fruit would be better where the ground was perpetually tilled; but he thought it a great sacrifice; the extra quantity and quality of the fruit would not make up for the loss of the grass. He has an orchard which has always been in grass, and which has always done well; but he keeps it rich, and the ground dug up to the distance of 6 or 8 feet from the trees. His trees were planted near the surface. He said that gardeners agree about the grape vine, that the borders for

them should be wide and not deep, as the roots would run near the surface. The same rule would apply to all other trees. He thought it a good practice to put stones under the roots of a tree.

Mr. Gray said he had been troubled with canker worms, and had tried all manner of experiments to get rid of them. He had raised up little heaps of sand round the tree; the grubs would crawl up part way and then fall down, and thousands might be caught; but this mode was not effectual; some would succeed and go up the tree. Tarring injures the tree, and if a strip of canvass is put round first, when the tar is applied, if it is warm, it soon hardens; if it rains, it chills, and in either case, the grubs will find their way over. Lead cutters are expensive, and will soon be filled up; and the wind will sometimes dash out the oil. There is an uncertainty in all these expedients, and they cost more than they come to. He thought the cheapest and most thorough mode was to make a wooden boot or square box round the tree, with projecting eaves; then tar in the angle under the projection. In this way the tar was protected from the sun and rain, and would remain soft much longer. The space between the box and tree should be stuffed or wadded, so that the few grubs that may be in the ground between the box and tree, cannot get up. The grubs will not undermine. The boxes will cost but about one shilling each.

He said Dr. T. M. Darris, of Cambridge, recommended swine, whose scent is very acute, to be turned into an orchard, as a preventive against the canker-worm, as they would root about the trees and devour the grubs.

Mr. Gray said, in regard to the distance to set apple trees from each other, some thought two rods was about right, but he had them set out 40 feet; he remarked that Mr. Phinney thought 40 feet too small a distance. In England, 60 feet was the customary distance, but in this country we have more sun and heat, and a less distance would be sufficient. Pruning should be done when the tree is young.

Mr. G. said the apple would be our staple fruit, and that no investment near Boston could be made better than in fruit trees. He thought a pear orchard would be more profitable than an apple: they live longer but come into bearing later. He referred to the Endicott pear tree at Danvers, which is now more than 160 years old, and still in bearing. We have much encouragement in having so much sun. He thought standard fruit better than that from trained trees; there may be exceptions in some delicate varieties which need the wall. As to the Peach, we are just in the line where it may be cultivated: did not know whether it is best to prune at all: it is not long-lived, and at best is but a sickly shrub, and must be treated as such. Our winters are rather too cold for it. The great enemies to the Plum are the Curculio and warts. The origin of these warts is attributed by some to the bursting of the sap vessels—by others, to an insect—but he did not know that there was any remedy. He was of opinion that swine would be beneficial in the destruction of the curculio, by turning them in among the trees. There was very little, however, that could be done to prevent their ravages. But with the caterpillar it was different: a person was inexcusable, who suffered caterpillar webs to disfigure his trees; they could be easily taken off with a conical brush. Borers did not trouble him: he suggested that it was owing to his clayey soil. The Quince is a valuable fruit; he had observed great quantities planted in West Cambridge, near Fresh Pond. It was easily cultivated, and he recommended it to the favor of the farmer.

Mr. Gray was asked, whether canker worms would be so likely to annoy when the orchard was in tillage as when in mowing. He replied that he thought not.

Mr. Dodge, of Essex, said he knew of no subject more

interesting than fruit trees. It is but about five years since he entered upon their cultivation, and he must say that he had derived much pleasure from the business. He thought the cultivation of fruit opened a large field for our farmers, and that all should be induced to enter it for the profit and pleasure it would afford. It had been said that the railroads were using up the farmers, and he believed it was in part true, and for that very reason it was necessary that they should enter upon some new branch of business. Nothing presented itself with so much promise as the cultivation of good fruit. The market could not be glutted with it. He thought the farmers were greatly indebted to the gentlemen connected with the Mass. Horticultural Society, for their zeal in introducing so many valuable fruits from the old countries, as well as for the great interest they have manifested in collecting our fine native varieties, and in cultivating, testing and comparing them. He had been engaged in raising a nursery; had sowed apple pomace in the fall. This is objected to by some, as the pomace contains malic acid, which is prejudicial to the growth of the tree, but by manuring with ashes, this difficulty is obviated. The tree will make a vigorous growth the first year, but will not be fit to bud until the second. Peach stones may be planted in the spring, and budded in September following. He considered it much better to bud trees while they were young, than to graft when they were older. Budding is much more simple than grafting, and the trees bear fruit equally well, although he had been often asked whether this was the case. Budding is on the same principle as grafting, excepting it is done with a single eye, instead of a number of eyes, and it was an absurd idea to suppose there could be any difference. Buds should be fully ripe before inserted, and he never takes out the wood, as is generally recommended. This is called the American system, and succeeds well in our climate. In raising the bark to insert the bud, great care should be taken not to injure the inner bark: the operation should be performed very delicately. In tying round the matting, every part of the slit should be covered, and bound so tight as to exclude all air from the wound. To succeed well in budding, it was necessary to pay attention to little things. To learn the art of budding, a person had better witness the operation, in preference to consulting books. Practice, not theory was wanted.

He had raised fine Pear stocks three years since, from seed sown in the pomace in the fall; they came up well and made vigorous growth. In the fall he was advised to take them up and put them in his cellar, as it was said the winter would destroy them, but he let them stand, and none died. His soil is a light sandy one, and not retentive of moisture, and therefore not inclined to heave.

Mr. D. thought trees taken from a nursery where they were much crowded and forced, would not do well. Trees thus unnaturally forced have a great flow of sap, which enlarges the sap vessels; and when planted into a poorer soil, there is not sap enough to fill them: they consequently shrivel and the tree dies. In transplanting, it is important to preserve the small fibres or spongioles. The tree should be removed before the buds begin to start, and should not be set deep. Whether spring or fall is the best time, he knew not; but had succeeded well in transplanting in the spring. He was opposed to staking trees. He thought the stones in an orchard had better remain there. He knew an orchard which was never broken up, and in very rocky ground, yet it was a very fruitful one. The question was often asked, whether the quality of the stock affected the fruit of the bud or graft. He thought it did not. There might be some difference in the quality of the same variety of fruit, owing to different soils and exposures; but he said the sap from the stock did not go directly to the fruit, but ascended to the leaves which were from the bud or graft, and it was in the leaf the sap was elaborated into the juices that form fruit, and this gives its peculiar character.

Mr. Cole described the manner in which he raised trees from seed. There were some who thought it necessary to expose the seed to the action of frost, and therefore sowed it in the fall, but this was not correct. On sowing a lot of apple seed in the fall, he saved a parcel of seed for experiment. He divided it into two equal parts. He wet one lot in the cellar, where it was not exposed to frost. Next spring, planted it and the other lot dry in adjacent rows. Those that were kept moist grew; the others did not. The next year, he obtained 22 quarts of apple seed after the ground was frozen. In the winter wet it and put it in sand, and set one-half out of doors to freeze; the other half were put in the cellar and did not freeze. The

next spring being wet and backward, the seeds all began to sprout about alike, and some of the sprouts were an inch in length before the ground was ready to plant them in. He had come to the conclusion that it was necessary to keep the seeds moist, but not to freeze them.

In planting peach trees, he thought it necessary to get the stones from fruit raised among us, rather than from that which came from the South, as he imagined the trees would be hardier. He said the stones should be buried a foot below the surface in the fall, to keep them from mice; in the spring, take them up and crack them, and plant as we should corn.

Transplanting may be done in the spring or fall, if it be done well. The objection to fall transplanting arises from its being done too late. The proper time is from the 20th of Sept. to the 10th of Oct. The earth then gets well settled round the roots, and the trees will grow well the next season.

Mr. Gardener, of Seekonk, said there were different opinions—some recommended setting trees in the fall, others in the spring—some were for plowing an orchard, and others to let it remain in grass. He had an orchard of 4 or 5 acres, set out in the fall, and only two or three trees died. It flourished well without plowing, but in consequence of what he heard in the agricultural meetings last winter, in favor of plowing, he had plowed it, and if what had been said by some of the gentlemen this evening be correct, he had done wrong. He had another orchard of 4 or 5 acres, which had not been plowed for 15 or 20 years, and he got from it successive crops of grass and a large amount of excellent fruit. Some of his neighbors plow their orchards and let their swine run among their trees, but he thought they did not succeed so well.

IMPROVED NATIVE CATTLE.

We take pleasure in copying the following article from the New York Central Farmer. It is upon a subject of deep interest to every husbandman, though one too much neglected by most of them. The initial of the writer tells us that it comes from the pen of our valued friend, Bement, a gentleman whom we know to be a judge in such matters, and, therefore, we set the mere value upon his opinions. We commend the article to our readers, and hope they may profit by the advice which the writer desires to inculcate.

Improved Native Cattle.—Much has been said and written on the subject of the various breeds of cattle, and such are the various opinions, and views on the subject that one is left in the dark, as to which breed combines the greatest number of good qualities. While one prefers the Durham, another thinks the Devon the best; a third perhaps, gives a preference to the natives. Now each one may have good, and plausible reasons for his preference.

Some of our readers have complained of our partiality to the Durhams; if so, it is because the owners and breeders of Durhams, have been more willing to communicate. Our columns are open, and we invite free discussion on the subject. We profess to be "open to all, and influenced by none." Our creed is to stick to one breed, until we find a better. Now, we have tried the Natives, Devons, Durhams and Herefords; and so far as our experience goes, and we do not wish our opinion to pass for any thing more than our opinion, or what it is worth, we certainly give the preference to the Durham, and for the following reasons: 1st. For their quiet docile dispositions; 2d, for their fine forms, and beautiful symmetry; 3d, for their early maturity, and aptitude to fatten; 4th, for their deep milking propensities; and 5th, for their power in the yoke. Aye, even so, power in the yoke.

Our correspondents Messrs. Cone, say "the Devons exceed all others for the draught, road or plough, or any place where the physical powers are called into action." That the Devons are quick movers, with a light draught, or that they possess great power, according to their size, no one who is acquainted with the breed will pretend to deny, but that they "exceed all others for draught," is preposterous. For great power in the yoke, we believe it is generally admitted, that the native cattle of New England in general, excel any cattle in the world.

Youatt says, "where the ground is not too heavy the Devonshire oxen are unrivalled at the plough. They have a quickness of action, which no other breed can equal." And then again he says, "The principal objection to the Devonshire oxen is, that they have not sufficient strength for tenacious clayey soils; they will however, exert their

strength to the utmost, and stand many a dead pull, which few horses could be induced or forced to attempt."

Our experience with either the Durhams or Devonshires, and for working cattle has been very limited; but we have known several yoke of Durham oxen, bred and worked in this vicinity, that were of uncommon power, and quick movers for their size, and so highly were they estimated, although "ringed, streaked, and speckled," and "with pendant horns," were sold for working oxen, for \$225.—We have taken some pains to enquire of the owners of Durham oxen, as to their power, and endurance in the yoke, and we have with one exception always received a favorable reply.

Youatt also says, "an opinion generally prevails that the short horns are unfitted for work; and in some respects it is admitted they are so, but the correct reason has not been assigned, and the question may fairly come briefly under notice. That they are willing and able to work, the writer knows from one in particular among many instances. He has now a team of 2 year old steers, work constantly nine hours a day; a system he would by no means recommend, and forced on him by circumstances connected with entrance on a new farm, at present ill adapted to grazing cattle. They work admirably, but surely cattle which will go as profitably to the butcher at two years old, as any other breed at three, and as many even at four, ought never as a general rule, to be placed in the yoke."

We are at a loss to understand what our correspondents mean by "Dutch Bullocks." They are certainly too intelligent and well informed on the subject to assert that meat of the improved Durham "is characterised by a dark appearance, participating largely of the character of bulls meat."

We have wandered from our subject; our intention was to say something about "Improved Native cattle." By crossing inferior with improved breeds, and raising the best calves, it is in the power of almost every farmer in the course of a few years, without involving himself in debt greatly to improve his stock, and increase the income of his dairy.

On a recent visit to the farm of Major Bush, in the town of Nassau, Rensselaer county, we were shown the finest herd of Native cattle that we have ever seen. There were about twenty-five or thirty head, all bred by the Maj, all of a dark red color, with fine white tapering horns, turned up and very uniform in appearance. The Major's predilections are strongly in favor of red cattle, still he did not hesitate to procure from the late Patroon's herd, a Durham bull, though "ringed, streaked and speckled," and introduce into his herd some twelve or fifteen years ago, and by careful selection, he has completely bred out the obnoxious white color, and preserved the straight back, broad loins and hips, deep capacious bodies, full brisket, small head, and neck of the Durham. And now it is generally acknowledged, that the Major has the best stock of cattle in the town.

His young bull, two years old last spring, is a large and rangy animal, of good form and proportions; small head and clean neck, quite free from dewlap; deep chest, straight back, broad on the loin, and hips wide apart, and lay even with the back; legs straight, and medium sized bones; horns of a fine waxy color, not very long, but with a handsome curve upwards, rather large at the base; a fine bright eye, and as gentle and docile as a dog; when turned out of the stable, for the Major stables all his cattle, the person that takes care of him, with a small switch, could drive him like a well broke ox, any where he pleased, and it is their intention to make a single yoke for him, and work him before their oxen. This is a good plan, as he will not only pay for his keeping, but will be kept docile and full as useful for stock. His color is a dark mahogany red, and "take him all in all," it will be difficult to find his superior among our native cattle. And should the Major take him to the Cattle Show of the State Society, which is to be held at Poughkeepsie, he will stand a good chance to carry the highest prize for Native cattle, which is twelve dollars. So much for "Native Improved Cattle."

Bakewell's wonderful improvements in live stock, were effected by his always selecting and keeping the best for breeders, and not like the most of our farmers, selling the best to the butcher or drover, because they could obtain a dollar or so more per head.

His principles were, fine forms, small bones, and a true disposition to make ready fat, which is indeed inseparable from small bones, or rather fine bones, and fine forms, or true symmetry of parts.

In the fattening of cattle and sheep, there is a point to be obtained, at which their flesh will be of the best quality and most valuable to the consumer, and all beyond this is a waste of time and expense in their keeping.

An eminent breeder says, that "before Mr. Bakewell's days, we had no criterion but size, nothing would please but elephants and giants." And this is too much the case with our farmers at the present day. But Bakewell's prime object, in improving cattle and sheep, was to render his animals most profitable in *beef* and *mutton*.

So far as we breed cattle and sheep in this country, we must extend our views beyond *beef* and *mutton*; and with the former combine *milk*, *butter*, and *cheese*, and a fitness for *labor*; and together with *mutton*, aim at the greatest quantity of the *most useful wool*.

We wish to remind our readers upon the importance of keeping none but good breeds of stock, whether cattle, sheep or swine, even if they keep but few of them, rather than a great many poor ones.

We do not wish to encourage extravagance. We do not desire our farmers to rear *fancy stock*; nor do we wish that they should go beyond their incomes or means, and purchase at enormous prices, stock which have nothing uncommon or excellent to recommend them. But we do wish, most earnestly wish they would rouse up a little in this respect. Keep no more than you can keep well. If you are not able to improve your stock solely yourself, get others to operate with you, club together and help each other. And if one of your neighbors who perhaps, cannot well afford, should take an animal for the season, relying upon your encouragement and support; give him your encouragement and support. Don't cry him down, and throw every obstacle in his way, for you thereby do much mischief, and no good. B.

RESTORATION OF WORN-OUT LANDS.

Some time since we published an account of the astonishing improvement of Dr. Noble, of Philadelphia, on a worn-out farm of his in Delaware, which he had bought at \$15 per acre, and so fertilized in a short period as to produce upwards of 47 bushels of wheat per acre. In inserting that account we expressed the hope that the Dr. would favor the public with a particular account of the *modus operandi* pursued by him, in order that the Agricultural public might be benefitted. Some friend of the Dr. has answered our inquiries in the annexed article, but we regret that he had not been more particular:

From the Farmers' Cabinet.

WORN-OUT LANDS.

In the American Farmer of December 27th, appeared an extract from a communication by John Jones, of Wheatland, to the Farmers' Cabinet, in which he makes allusion to the astonishing effects brought about in the renovation of worn-out lands in Delaware, by Dr. Noble, of Philadelphia. On land which cost but \$15 per acre, and produced but five bushels of wheat three years ago, by the application of eight loads of manure, costing—freight included—less than \$1.50 per load; the Doctor has raised forty-seven bushels of wheat from 1 acre, and from the remainder rather less, the average being an enormous increase over the produce of former years. The editor of the American Farmer expresses an "intense desire" to learn the secret by which the doctor has been enabled, at the small expense of less than \$12 dollars per acre, to effect such astonishing results.

We would inform him, there is no secret whatever in the method pursued, but such as any farmer might discover for himself, if he would but take the trouble to read some of the numerous works upon the application of Chemistry to Agriculture, lately published. Knowing by chemical analysis or examination, the composition of the grain and straw of wheat, and that of the soil, it was an easy matter to apply those materials which were needed, in order to produce a healthy and vigorous growth. He prescribed for his wheat and soil as he would for a patient, and with equal success; health and strength have been restored to the suffering subject.

Now, as to the sources of the manure which he has made use of, we will say a word; it is in the power of every farmer, near large cities to procure the materials which are needed to enrich the soil.

The Doctor formed a compost obtained from various sources, consisting of the refuse of tanners', soap boiling establishments, &c., in short, of such animal and vegetable

substances as contain soluble salts, or which can be made subservient to the growth of plants. In the selection of these substances he was guided by their composition as made known by chemical analysis. "Give," says the rational agriculturist, "to one plant such substances as are necessary for its development, but spare those which are not requisite for the production of other plants which require them."

"An emphatical," or quack system "of agriculture, has administered the same kind of manures to all plants, or where a selection has been made, it has not been based upon a knowledge of their peculiar composition." The phosphate of soda or lime, the silicate of potash, and sulphate of ammonia, or other salts containing these in other combinations, are necessary for the production of wheat; these have been supplied by the Doctor, and why should we be astonished at the results which have followed their application? He has adopted the *scientific* method of manuring, and if his knowledge of the composition of the soil and wants of the crop was exact, and his conclusions correctly drawn, he could not err in the application of his manures. His is *indeed* a triumph of science over the old fashioned, uncertain, and empirical mode of farming; here is an example worthy the attention of every farmer, and especially should it be considered by those whom prejudice has so blinded that they can not perceive the vast benefits arising from the judicious application of scientific knowledge to agriculture. It is indeed "creditable to the Doctor as a scientific farmer;" we hail him as a benefactor, and desire that he may persevere in that path of usefulness in which he has found both pleasure and profit. J. S. L.

Philadelphia, Second month 6th, 1844.

HISTORY OF THE NESHANOC, OR MERCER POTATOE.

Canfield, December 30th, 1843.

MY DEAR SIR,—I have succeeded by the aid of Mr. McLain, P. M., at Warren, and Mr. Gallony, P. M., Wilmington, Mercer county, Pa., in obtaining the history of the Neshanoc or Mercer potatoe. It is furnished by James Gilkey, the brother of John Gilkey, who produced it from the seed. It appears from James Gilkey's letter, that an article was published in the Mercer Luminary, on the 5th of June 1839, which was copied from a paper at Easton, Pa., pretending to give an account of the origin of the said potatoe, in which the writer, as Mr. James Gilkey says, was mistaken in some particulars of the biography of his brother, which he wishes corrected; I shall copy that part of his letter, according to his request.

John Gilkey and James Gilkey, moved from Westmoreland county, Pa., in the month of November 1797, and settled on a tract of land in what is now Slippery Rock township, Mercer county, Pa., about two miles east of Neshanoc creek. In the fall of the year 1800 or 1801, John Gilkey collected the balls or apples from his potatoes, which were of the varieties of red, blue and white. In the spring he planted the balls or apples in a bed in his garden. The seeds produced small potatoes, some of them not larger than peas, and of different colours. On being cultivated the second and third year, the potatoe arrived at its full size. How John Gilkey selected from the first production, Mr. James Gilkey does not know. Mr. Bevan Pearson first cultivated this potatoe in the vicinity of Philadelphia, from seed obtained in Mercer county, and thence named it after the county, where it was first produced. Mr. John Gilkey named it Neshanoc, after a creek from which the settlement was named. John Gilkey is dead, and his surviving brother is the only person from whom correct information can be obtained. His statement may be implicitly relied on. In the publication above mentioned, it was said, "that John Gilkey was educated for the Roman Catholic ministry, and that he was a poor solitary exile from the Emerald Isle."

"It is true he came from the county of Derry, in Ireland, when but a youth, with our parents and the rest of their family, in the year 1772, before the American Revolution. He was a Protestant, and not known to have changed his profession. He lived in Pennsylvania from 1772 to 1826, when he died."

The history of this excellent potatoe is probably as ample as you desire, and it is certainly as full as can at this day be obtained. Most sincerely, yours,

E. WHITTLESLEY.

J. S. SKINEER, Esq. Farmer's Cabinet.

POUDRETTE AND STABLE MANURE.—In a note to the Editor, from D. K. Minor, dated the 6th instant, he says:

"I send you herewith an extract of a letter from Mr. T. B. Townsend, of Newtown, L. I., who was long an unbeliever in the value of Poudrette, but who now uses it largely." He says:

I have the pleasure of stating, that I have used Poudrette of the manufacture of your company, and have seen its good effects on flowers and garden vegetables generally; but more especially when used on wheat, and grass following it.

In the fall of 1841, I manured a field for wheat with the best stable manure from the city of New York, at the cost of \$33 per acre, except one acre though the centre, on which I put forty bushels of Poudrette, at 40 cents a bushel, and transportation \$1—equal to \$17 per acre. On cutting the grain in 1842, I could perceive no difference, except that the straw was shorter where the Poudrette was used than where stable manure was used; nor could I perceive any difference in the grass, on mowing it this season, or in the pasture up to this time; the grass and pasture being quite as good where the forty bushels of Poudrette were used, at a cost of \$17, as where the stable manure was used at the cost of \$33 per acre.

This year I cut a piece of wheat which was manured with Poudrette last fall, at the same rate, forty bushels per acre, which is as good as any in the country, yielding thirty-six bushels and a half per acre, weighing sixty-one and a half pounds per bushel; though Long Island is not considered a good wheat country.

On corn, I think it should be spread broadcast, as it is too powerful to be used in the hill at the rate I use it, forty-five bushels to the acre. My corn this year is nearly double where I used Poudrette at that rate broadcast on the sod before it was broken up, to that which was planted with other manure.

I have a piece of wheat sowed this fall, manured with Poudrette, fifty bushels to the acre, at the cost of \$16.50, (Poudrette costing less than in 1841) which looks exceedingly well. I have used poudrette this year to the amount of over \$150, and can recommend it as a good and cheap manure, especially where the farmer has to haul his manure any distance. I remain, yours, &c.

T. B. TOWNSEND.

Newtown, L. I. Nov. 2nd, 1843.

Far. Cab.

STRAWBERRIES.—I noticed a piece in a late number of your paper, upon the cultivation of strawberries, in which the writer appears to doubt whether there are male and female plants. It is known to botanists that all the plants of strawberries have both male and female organs upon each flower. But upon one plant the male organs will so predominate that it will rarely bear any fruit; this for practical purposes, I call the male plant. It is easily distinguished,—is a larger, stronger plant; has larger and rougher flowers than the other: all the runners from it produce the same kind of plants, with the like kind of flowers. The male plant being stronger and not reduced by bearing, spreads rapidly over the ground and smothers the bearing plants, and the strawberry bed becomes barren. Where strawberry beds are mixed in this way, with barren and productive plants, it certainly can be told when they are in bloom, what parts of the bed will bear. Let those who would have productive strawberry beds, not neglect to set out a majority of female plants, whatever may be said to the contrary. One male to a dozen females may be sufficient. Mr. Longworth, of Cincinnati, I think, first called the attention of the public to the above facts. I have known them for about twenty years, and have had productive beds. I have seen beds where a single female flower could not be found: and in the season for fruit, twenty strawberries could not be found upon a rod of ground. S. D. MARTIN.

Colbyville, Kentucky, Jan. 1844.

CHICKEN-MANUFACTORY.—Nature is getting superfluous. We rather think she will soon be voted out of fashion and dispensed with. There is a chap just over our publication office hatching Chickens in a big box, fifty a day, having a thousand eggs always doing. The trouble of attending them is slight, the heat costs very little, and the chickens crack their several shells and walk up to their dough and water like wood-choppers to dinner or sailors to their grog. They are clean, strong and lively, grow fast and rarely die, (not being dragged through the grass;) and whoever has a hatching machine can have "Spring Chickens" every week in the year, and at small expense.—If we could only invent a machine to lay eggs now, hens would be done with.—N. Y. Tribune.

THE AMERICAN FARMER.

PUBLISHED BY SAMUEL SANDS.

Our correspondent, "J. E. M." is welcome, thrice welcome, to our columns, and not the less so because he takes exception to an *opinion* advanced by us; for we have lived long enough to know that it is the utmost fallacy in the world for any one to set up the deductions of his own mind or reasoning, as infallible rules for the government of others, and much less has he a right to question the motives of those who view what he may advance in so "questionable a shape" as to "speak" to it. As our time honored correspondent hath the advantage of us in *practice*, as well as in *science*, and we are always willing to defer to the lights of his experience, no apology was necessary to secure him against any suspicion, on our part, that his difference of opinion was induced by the desire to "cavil." He, we should conceive to be the last of men who could be influenced by a motive so invidious, and we pray leave to assure him, that, instead of feeling displeased at his comments, we receive them in that spirit of thankfulness, which the desire to learn never fails to beget in the mind of one who places a just appreciation upon the teachings of a gentleman, like him, whose whole life has been illustrated by a series of exertions to elevate the agricultural character, and promote the prosperity of his kind, by developing the resources of the earth, as a means of adding to human comfort.

In our paper of the 13th instant, in an article on the advantages of the "Subsoil Plough," we concluded with this remark—"and we will add our belief, that subsoiling would be unavailable in any wet soils." This belief it is, that has drawn forth the excellent remarks of our correspondent, "J. E. M." who, speaking from his own experience, controverts the belief thus expressed by us. Our readers will recollect, that in the article alluded to, we remarked, that we desired "what we advanced upon the subject, to be considered merely in the light of *opinion*, but opinion gathered from no little reflection upon the nature of the thing, and from reading of the effects produced by it (subsoiling) in England, where it had been pursued for some years." And they will recollect also, that so careful were we, of misleading our agricultural brethren, that we emphatically added—"of personal experience we have had none, and can, therefore, only speak of the experience of others." We were thus explicit, lest our views might be misconceived, it having been our object through life, to endeavor to do good by pursuing the course which modesty and truth would justify, rather than by assuming the possession of knowledge to which we had no claims whatsoever. We are happy, however, to find that one so competent to decide as is "J. E. M." entertains different views to those which we expressed; and we are willing to believe that, the conclusions to which he has arrived may be justified by the difference which exists in the climate of this country and that of England, as the greater degree of moist weather which prevails there than here, and the greatly reduced power of an English sun to that of an American one, may operate a material difference, both in the powers of absorption of the earth, and in the amount of evaporation of the water which falls thereon. In using the term "*wet soils*," we so used it, in contradistinction to *moist soils*; and it is possible, we would have more happily expressed our meaning, had we said, that the good effects of subsoil ploughing would have been measurably decreased upon such soils as were very retentive of water, to what it would be upon sound dry soils, where the water which fell percolated through the earth and left them open to the drying influence of sun and air. It was our desire to impress the idea upon our readers, that before the full benefit of subsoil ploughing could be obtained, that the additional depth of soil thus opened to the penetration of the rootlets of plants, should

be placed in a situation to be relieved from a superabundance of water. We are aware that the farther you loosen up the earth, the greater chance do you give to the escape of the water which may fall upon it; but still we do think that so long as the *tibh* soil may rest upon a hard pan, almost impervious to the descent of the water, that the superincumbent body must remain in a state, more or less, of supersaturation, unless the *fall*, or *natural inclination* of the field should ensure the effect of drainage. All the best English and Scotch authorities which we have read, while they admit, to the fullest extent, the advantage to be derived from *subsoil ploughing*, maintain with equal pertinacity, that its maximum of advantages cannot be realized on "*wet soils*," without the addition of thorough draining, as the additional quantity of soil broken up and loosened by the subsoil plough, acts but as a reservoir to receive and retain the water which falls every rain, and presents to the rootlets of plants a bed by no means congenial to their growth and elaboration. But as our esteemed correspondent "J. E. M." assures us, that his experience leads him to different conclusions, we doff our beaver, and are willing to believe that this discrepancy in results in the two countries, arises from the physical causes to which we have before alluded.

CAMBRIDGE, March 16th, 1844.

Mr. Editor:—In your last paper, (March 13th,) in an Editorial, under the article "Sub-soil Plough," having treated the subject very forcibly in its favor, you conclude with some remarks which I apprehend, will not be sustained in theory, or in practice:—you say, "our opinion is, that it would effectually prevent the winter killing of wheat in all *well drained* and *dry lands*—and we will add our belief, that subsoiling would be unavailable in any wet soils."

With the understanding, that I do not take exception to this opinion and belief, for *cavil*, or *controversy*, but, because it is novel to me, and at variance with my preconceived opinions, in regard to the salutary influence of the operation of that instrument; and directly opposed to my conviction of one of the most beneficial effects that I had for many years experienced from the use, not of a sub-soil plough, but of an instrument very similar to it in purpose; though more costly and not so well adapted to accomplish the objects in view: it is for these reasons that I take the exceptions; and to obtain more light on the subject, as well as to correct my impressions, if erroneous.

I had always believed, that one of the chief advantages of this sub-soil plough, was its deep penetration into the sub-soil, without turning it up and weakening the upper or surface-soil by mixture; and thus affording an easy passage to the superfluous water, and at a cheaper rate than the modes usually practiced;—indeed, I believed it would be a good substitute for a mode which I had adopted, of sub-draining by deep and covered trenches, which I have frequently constructed, with much labor, but considerable effect, for that purpose.

The sub-soil plough, I have never used; and if your opinion and belief of it and its effects, be well founded—"that it will only prevent winter-killing in dry land; and that it is unavailable in wet soils."—I should not consider it worthy of being introduced into agricultural practice. Sub-draining by covered trenches, I have found by experience to be effectual in drying my fields; and without at all interrupting the cultivation. And it is unquestionably, one of the most effectual protections against the winter-killing, or heaving out, as it is called, of wheat that I have ever known. I had hoped that the "Sub-soil Plough" might answer the same purpose for less cost and labor, by opening a loose sub-soil for the passage of the water from the upper: notoriously, the heaving out of wheat by frost, is occasioned by the expansion of the water in the soil, when depressed to the freezing point, whereby the wheat is extruded and killed; and no credit can be attached to an instrument that will prevent the winter-killing of wheat, as you think of the sub-soil plough, only on dry lands, and be unavailable in wet soils.

By means of the "sub-drains," to which I have alluded, the heaving out or winter-killing is in my opinion, effectually prevented by their capillary action, or rather, their action on the capillaries of the soil. The drying effect is seen through a large extent of surface, and more remarkably through a considerable depth; their construction

is more easy of execution than would be imagined, and they will continue for many years unobstructed, when the open ditches require to be annually cleaned out. As it may be desirable to some, I will describe the mode I have adopted to construct them, viz. Open a trench about a foot wide, and as deep as may be necessary;—obtain some oak poles, or other durable wood—cut some of them into short pieces, to lie across the trench for the support of the long poles, which are to be fixed upon them carefully, so as not to leave too large space between them—cover the poles with shavings or cedar brush, and cover these with earth: arrange these shavings and poles so far from the bottom of the drain as to allow a free passage for the water—and from the surface to be secure from the plough. From experience, this will make the most durable and economical defence against the water soakings of lands, and consequently, against the winter-killing of wheat, that I have ever known.

These drains may be sunk much deeper than the vent for their discharge, and seem to act in a manner analogous to that termed endosmosis, by which, mysteriously, the juices of the albumen pass into the heart wood of a tree when their free circulation has ceased, and thus have become clogged and obstructed by the cold season; and this passage is effected without any vascular system or set of tubes discernible in that direction, for its performance.

Excuse a hasty and unfinished paper, as the mail is closing.

In welcoming our old and valued correspondent and friend, Dr. Magoffin, to our columns again, we must seize the occasion to return him our thanks for his present of *Wine, Corn, Artichokes and Seeds*, the which, in the kindness of his noble heart, he sent us from far off Alabama. To be thus cherished in memory by one so distant, upon whom we have no other claims than those which belong to the relations of editor and reader, is as priceless in our esteem as female honor. But why does he now impart to his communings so much of the characteristics of "angel's visits?"—Why are his contributions so "few and far between?" In times of yore he was more prodigal of his dispensations of *light* upon his favorite science—the culture of the earth; never, however, but to win the golden opinions of our readers, and impose upon us the renewed obligations of an abiding gratitude.

We have not yet uncorked his genuine juice of the grape, but have no fears when we shall, that it will require a bush to render it acceptable to the palate,—and of this he may be assured,—uncork it when we may, we shall remember him, if not in the "flow of soul," at least in the sincerity of the heart. The *artichokes*, by the way, have excited no little curiosity by their hugeness of dimensions—and partaking, as we do, of the general sentiment, our *bump* has not been a little excited to become more familiar with their culture, product and uses. Cannot our good friend, Magoffin, gratify us so much as to give us a paper upon the subject. Certain are we, that, besides the favor which his compliance with our request, would confer upon us, he would contribute greatly to the pleasure and instruction of every reader of the *American Farmer*.

LAND OFFICE, ST. STEPHEN'S, ALA.
January 9, 1844.

Dear Sir,—Some days ago I shipped you two boxes, to be forwarded by James Sands & Co. of Mobile, free of any charge, it being paid by me, containing 3 stalks of corn as they came out of the field, showing the growth of that plant with us. These stalks stood 4½ feet apart, 3 and 4 in the hill, on new land. In the same box, two parts of two stalks from old land, with the ears that came off them, about a foot shorter; the stalks planted in the same way. These stalks were taken out of the ground too early, consequently they have shrunk remarkably; and please to recollect, that owing to an unrivalled bad year for the planting interest and production, no plant or grain in the county is more than two-thirds its usual size, so that you see the production of the *worst* year.—Also a specimen of *Rice*, which we raise here on any and every kind of land—and situation. We deem it far superior for table use to the South Carolina. This you can determine.

It has more of the *glutinous* and less of the *watery* principle, and every way *richer* we think—produces luxuriantly—grows 5½ feet in height—straw, if rightly cured, superior forage, especially for sheep and cattle; when put through the cutting box, nothing can be eat with more gratification by all animals—raised with singularly little labor—one plowing and two hoeings. Corn following, it becomes an insurance for a good crop. After cutting the oats it throws out a fine growth of pasture for cows and sheep unrivalled—50 to 100 bushels shell rice to the acre. By putting the stalks of corn together you can see *actually* the growth of corn in this country and climate, making the before mentioned allowance. The rice on being prepared will speak for itself. In the small box you have specimens of two varieties of the sweet potato lately introduced here. The white yam—the inside of which is deemed a great luxury after being boiled and a little steamed, until a fork will readily pass through them—made into a pudding with rice, &c. they are much esteemed—the centre white part only used. Also the red species, vulgarly called *negro killer*, one of the most valuable roots that ever has been introduced into this country, produces astonishingly from cuttings, slips and vines; the last planted as late as August produced the small size, the large planted early. When planted early they are at maturity by July, when we *grapple* and feed with them, the roots producing on till October, lay well in the ground, and bear frost; a singularly fattening quality—when first dug more resemble in taste the *Irish*, but grow by housing, *sweeter*—always dry and mealy—grow in the shade of trees. I plant Irish potatoes in February, dig when at maturity and plant the ground in *negro killers*, and make the largest size. To make the heaviest rice for table use, I drill a piece of well prepared land in rice at 4½ feet on first March—plow with the Scots deep on full moon, and drill in the centre of the rows, corn, thinning out to 18 inches from stalk to stalk—stick cuttings of the *negro killer*, two between each stalk, or slips, or vines. As soon as the corn will admit, cut it at the ground, and carry out of the field, *cultivating* the ground well with the hoe and plow. The rice has now great room, and so has the potatoes. We cut the corn in August early. The potato vines keep the ground moist and cool—essential to the rice—and they both make heavy crops.

I also have sent a specimen of Wine, made in October last from the wild grape, (two of them) growing profusely in our woods among trees and bushes. What would they do if cultivated and exposed to the sun? I am trying that point. I have hundreds in cultivation. I have requested Mr. Sands & Co. to ship these boxes at my expense entirely.

With sincere regard I am, dear sir,

Yours respectfully, JAMES MAGOFFIN.
[The boxes and contents have arrived, and can be examined at our office.]

"J. S. S." will receive our thanks for the communication which he has forwarded us, as well as for the very appropriate introduction with which he has prefaced it. The receipt of a missive from him is the more welcome, as it recalls to our recollection associations of by-gone days, which are the dearer, as they serve to remind us that the heart which a quarter of a century ago projected the *American Farmer*, is still warmed by its generous love for the pursuits of agriculture, and assures us, that the hand which traced, and the mind which conceived, so many racy and classic articles in other days had, like "old wine," improved by age—that while the one has retained its cunning, the other has, with time, grown in power and force.

HOW TO PRESERVE THE VITALITY OF CUTTINGS FOR GRAFTING.

Mr. Editor,—I have scored the last lines of the accompanying note from Mr. Peirce, persuaded that the hint may be useful in assisting the efforts of public benefactors in their laudable endeavors to disseminate choice fruits through the country.

Let me recommend you to copy from the last Southern Planter a recipe for chills and fevers, omitting the introductory remarks of the communicator. The writer of the letter says, that in a thousand cases he has never known it to fail; and I happen to know that it was completely successful in one which for nine months had resisted every prescription.

NURSERY AT LINNEAN HILL, }
March 19th, 1844. }

Mr. J. S. Skinner,—Dear Sir,—Mr. Callan yesterday handed me the cuttings received of Mr. Whittlesey, for which I am under great obligation to you. I regret that there seems to be but little probability that they can be resuscitated—I much fear that vitality is extinct—I have placed them under ground and shall graft them on good size stalks, so as to have fruit from them in two or three years, should they live, of which I have but little hopes. *Would it not be well to wrap cuttings in moist rags, and then envelope the whole in gum elastic to prevent evaporation? This I think would secure easy and incommodious transportation in such cases.*

Yours, &c. JOSHUA PEIRCE.

VALUE OF HORN SHAVINGS AS A MANURE FOR CORN—its mode of operation—an artificial substitute—importance of Urine, Charcoal and Plaster, and the best method of applying them.

We are indebted to Dr. DANIEL LEE, a distinguished member of the New York Legislature, and what is better still, an enlightened scientific and practical farmer, for the following highly interesting letter. The fact which Dr. Lee states, on the authority of the Hon. Mr. Humphrey, in relation to the value of *Horn Shavings* as a fertilizer of the soil, and as a means of increasing the corn crop, is of great and intrinsic value; but not half as much so as the suggestion which he makes of a *substitute* for horn shavings, as the supply of the latter is too limited to render them available to any considerable extent as a manure, while the *substitute* which he proposes, being comprised of human urine, the excretions of domestic animals, charcoal and plaster, renders it obtainable by almost every one. Dr. Lee is correct, in referring the increase in Mr. Humphrey's corn crop to the *ammonia* in the horn-shavings; nor has he discovered less astuteness in ascribing a large portion of its fertilizing agency, to the tardy giving out of the supply of ammonia, owing to the slow process of decomposition, peculiar to such substances, as there can be no doubt that the great object in the growing of plants is, to keep up a continuous and moderate supply of pabulum, excess of nutrient matter being almost as fatal to their growth and the perfection of their fruit, as the total absence of food in the soil.

We bespeak for this admirable letter of Dr. Lee, an attentive reading, and we ask our agricultural brethren to reflect seriously upon the important truths which its results, and reasoning, so obviously would inculcate—truths which should teach us all not only the value of *urine*, but the necessity of resorting to prompt and effectual means to husband every gallon made on our farms. If we would listen to the words of wisdom, all would take instantaneous measures, to so arrange our stables and cow sheds, as to lose none of this active fertilizer. A trough placed in the rear of the horses and cattle, if filled with absorbing materials, and sprinkled with plaster or charcoal, or plaster and charcoal mixed together, daily, would not only economise, but prevent the escape of the ammonia, and thus enable the provident husbandman, to manure two acres for every one that he now does; for, to us it is obvious, that there is full as much, if not more *virtue* in the liquid evacuations of our stock than there is the solid matter which they discharge.

But as we do not wish to delay the reader any longer from the instructive letter of Dr. Lee, we must conclude our comments, by returning to that gentleman our sincere acknowledgements for the distinguished favor he has conferred upon us, in making our journal the medium of so important a communication to the public. And while we thus return him our thanks, we may be permitted to indulge the hope, that notwithstanding this is the first time he has honoured us, it may not be the last; for though he be personally a "stranger," his writings have made him an old acquaintance, whom we have fondly cherished in our affections; to whom we have looked up as a

benefactor to the cause of husbandry—a cause which we have ever appreciated as the first of national benefactions.

As we have pen in hand, and feel in the proper mood, we must thank him from the depth and breadth of our heart, for a copy of the *Report* which he made to the *New York Legislature*, from the committee on agriculture; and having thus acquitted ourselves of an imperative duty towards him, we will now ask our patrons to read, digest, and profit by his letter, which we subjoin:

ALBANY, March 15, 1844.

To the Editor of the *American Farmer*:

DEAR SIR: Although an entire stranger, you have kindly noticed some remarks of mine on various subjects connected with the practice and science of rural economy, for which I desire to make due acknowledgement. If the following suggestions be deemed worthy of the perusal of your readers, they are written for that purpose.

Last Thursday evening we had an interesting agricultural meeting at the Hall of the State A. Society. His honor, the Mayor, FRIEND HUMPHREY, Esq., stated that by the use of a small quantity of horn shavings obtained at a comb factory, and put into each hill of corn on two acres of ground, very poor and sandy, he had harvested 120 measured bushels of shelled corn. Where none of this remarkable fertilizer was used, the crop did not exceed 15 bushels per acre. Of the correctness of this statement there can be no doubt.—I inquired carefully into the matter as it has an important bearing on some experiments of my own, and on the science of vegetable physiology. This was the material fact in the case: a few pounds of ammonia in horn shavings called into existence on an acre of land an increase of 45 bushels of corn, together with all the extra stalks, leaves, &c. necessary for the perfection of so much grain. How did the horn shavings operate to produce a result so extraordinary, and truly useful?

In the first place, I conjecture that they were decomposed slowly and gave up to the roots of the plant a moderate supply of ammonia for months. This active substance served alike to feed and stimulate the living assimilating organs of the corn, from the first sprouting of the germ to the full maturity of the ear. Had the same quantity of like constituents been placed in the hill when the corn was planted, but in a condition to escape at once, like hartshorn from a smelling bottle, their fertilizing influence would have been next to nothing. But it may well be asked: How can one half ounce of ammonia, or any thing else, produce 100 ounces of living vegetable matter?

It will be borne in mind, that the increase in this instance was from 15 bushels to 60 per acre; and of course the soil contained enough of the elements of corn to yield that small crop without the aid of horn shavings. A ripe dry corn plant contains, I believe, between two and three per cent of nitrogen—the important ingredient in ammonia. A small quantity then of ammonia will suffice. But it has been demonstrated that plants derive a considerable portion of their nitrogen from the air, and not from the soil.—I mean, not from the nitrogen in the atmosphere itself, but from ammonia, nitric acid and the like gaseous matters that contain it, and fall to the earth in dew, rain and snow. It is also worthy of consideration that about 94 per cent of corn plants are composed of the elements of water and carbon; and that a sterile sandy soil contains but a small portion of the carbon necessary to build up a crop of corn equal to 60 bushels per acre. The subject is not without its difficulties. I will, however, venture a solution of the problem, whether satisfactory or otherwise.

The slow decomposition of the horn greatly nourishes the young plant and gives to it the benefit of a larger and longer root, and shortly more of them, than it otherwise would have. This enables it to imbibe more food from even a poor soil, and from a greater distance from the stalk or stem, than it could command without this artificial fertilizer. As a consequence of obtaining a double quantity of nourishment from the soil, its leaves grow to a double size, and of course present to the gaseous elements in the atmosphere, a double surface for drinking in carbonic acid and other necessary ingredients. Now, if the roots being double in number, length and size, or any thing approximating to it, would double the crop from 15 bushels to 30; then the doubling of the length, number, and size of the leaves ought to double the crop from 30 to 60 bushels per acre,—being just the gain actually harvested by Mr. Humphrey. Of course the precise in-

crease in the roots and leaves of corn, is hypothetical. But that a field of corn that will yield 60 bushels per acre has far more roots and leaves, or surface of those bibulous organs, no one will deny.

As a good deal of the nourishment of plants taken up by their roots comes from the atmosphere in falling dews and rains, and also from weighty carbonic acid, it is important to have a light, deep, mellow soil, whatever may be its strength. For, other things being equal, a free soil will allow more and longer roots to grow in it, than one which is hard, shallow and impenetrable.

Every man, however, can not have a comb factory at his door; and it may not be amiss to enquire what is the cheapest and best substitute for horn shavings?

I answer, *human urine and the liquid and solid excretions of domestic animals.* The ammonia, and other volatile elements contained in all these animal matters should be fixed in something like plaster of Paris, charcoal, black vegetable mould, or muck, before they are applied to the soil. Where I reside, charcoal is cheap and can be used to fix the volatile matters in urine and manure to great advantage. It can be applied to the soil before sowing the seed, or as a top dressing to wheat or grass with good effect, without any thing added to it, at from five to 75 bushels per acre. If coal be expensive, ten bushels mixed with one of gypsum and moistened with human urine will form a valuable compost. A small handful of this compound covered in the hill with corn when it is planted, will have an excellent effect. Seed corn soaked in a strong brine of sal-ammoniac and rolled in plaster, will give a better crop for the operation. Urine that is allowed to stand in an open vessel soon loses nearly all its volatile ammonia. It should be applied at once to a heap of fine coal, or the latter should be placed in a tub, barrel, or vat. Not a particle of offensive gas will escape from the coal till it is saturated. A much larger portion of gypsum can be used if it do not cost too much. To raise a crop of corn on poor land, and plow in after harvest, all the crop except simply the kernels of grain, which may be 25 bushels, is a pretty cheap method for renovating a barren soil. This adds a good deal of carbon, and all the salts contained in the ash of the plant except what are in the berry.

All the information I can acquire from foreign publications, the experience of many gentlemen of science, and from my own observation, goes to establish the fact that a large quantity of manure is not essential to good crops, provided the little we use be precisely the matter needed, and in a condition to act rightly upon growing plants.

Yours respectfully, DANIEL LEE.

LARGE YIELD OF CORN.—Mr. SALMON HATHWAY, of Grafton, informs us that last year he raised ninety-two bushels of corn on one acre of ground. The corn was planted three feet apart each way and four stalks only were allowed to stand in each hill. On a quarter of an acre adjoining he raised one hundred and seven bushels of potatoes. He thinks it almost impossible to raise over one hundred bushels to an acre as some have reported to have done.

He spread twenty loads of the best green manure on grass ground, then ploughed it in, and afterwards spread on the surface twenty loads of compost and bushed it, and then rolled it down smooth. The best care was taken of the corn and he thinks he never saw a finer field. But he could not make it count a 100 bushels.

A man must have very good luck as well as very good land to raise a hundred bushels of corn on an acre.

It may have been done, but it would be more economical to plant one acre and a half for a hundred bushels than to put all on one small lot. There is a proper medium to be observed.—*Mass. Ploughman.*

PREVENTION OF MILDEW ON PEACH TREES.—We find the following remedy for mildew on Peach and Nectarine trees, recommended by the sagacious LOUDON.

"Take sulphur and rain or river water, proportions of two ounces of sulphur to every four gallons of water. Put the quantity which may be required into a copper or boiler, and let it (after it commences boiling) boil for half an hour; after which it may be taken out, or suffered to remain until it becomes of a tepid state, when it ought to be applied to the trees by means of a garden engine or syringe as in a common washing with water.—The time for applying it is annually, as soon as the fruit is set and considered out of danger."

From the Farmers' Cabinet.

FOOD FOR CATTLE.

At this time, when the correct principles of farming and feeding, as ascertained by chemical analysis, are a subject of general inquiry, I have thought the following article on "Food for Cattle," would be interesting to the readers of the Cabinet. It appears to me that a far greater value has been attached to some esculents containing a very large portion of water, such as turnips, beets, carrots, potatoes, &c., than they deserve; whilst others, in which the proportions of organic matter are very great, such as peas, beans, oats, barley, wheat-bran, &c., have been too much neglected. It is quite contrary to the received opinion, that 100 lbs. of the skin of wheat,—bran—is as valuable for cattle food, as 100 lbs. of almost any article that can be given to them. But this may account for the observation that we have often heard made, that "miller's horses and hogs are always fat," as they are generally fed liberally on wheat-offal. J. L.

Milverton, First month 12th, 1844.

Extracted from Dr. Playfair's Lecture, delivered to the members of the Royal Agricultural Society, in December last.

The food of cattle is of two kinds, azotized and unazotized, with or without nitrogen. The following table gives the analysis of various kinds of food of cattle in their fresh state:

	Water.	Organic Matters.	Ashes.
100 lbs. Peas,	16	80½	3½
" Beans,	14	82½	3½
" Lentils,	16	81	3
" Oats,	18	79	3
" Oat-meal,	9	89	2
" Barley-meal,	15½	82½	2
" Hay,	16	76½	7½
" Wheat-straw,	18	70	3
" Turnips,	89	10	1
" Swedes,	85	14	1
" Mangold-wurtzel,	89	10	1
" White carrot,	87	12	1
" Potatoes,	72	27	1
" Red beet,	89	10	1
" Linseed-cake,	17	75½	7½
" Bran,	14½	80½	5

A glance at this table would enable a person to estimate the value of the articles as diet. Thus every 100 tons of turnips contained 90 tons of water. But the value of inorganic or organic matters which these foods contained, differed. Thus Mr. Rham states, that 100 lbs. of hay were equal to 339 lbs. of mangold-wurtzel. It would be seen that that quantity of hay contained 76 lbs. of organic matter, whilst the mangold-wurtzel contained only 34 lbs.

One result on feeding animals on foods containing much water is, that the water abstracts from the animal a large quantity of heat, for the purpose of bringing it up to the temperature of the body, and in this way a loss of material took place. The mode proposed by Sir Humphrey Davy, of ascertaining the nutritive properties of plants, by mechanically separating the gluten, is unsuceptible of accuracy. The more accurate way is, to ascertain the quantity of nitrogen, which being multiplied by 6.2, will give the quantity of albumen contained in any given specimen of food.

The following table shows the equivalent value of several kinds of food, with reference to the formation of muscle and fat, the albumen indicating the muscle-forming principle:

	Albumen.	Unazotized matter.
100 lbs. Flesh,	25	0
" Blood,	20	0
" Peas,	22	51½
" Beans,	31	52
" Lentils,	33	48
" Potatoes,	2	24½
" Oats,	10½	68
" Barley-meal,	14	68
" Hay,	8	68½
" Turnips,	1	9
" Carrots,	2	10
" Red beet,	1½	8½

The analyses in this table, are partly the result of Dr. Playfair's, and Boussingault's analyses. The albumen series indicates the flesh-forming principles, and the unazotized series indicates the fat-forming principles. By comparing this table with the former, it will be seen which

foods contain not only the greatest quantity of organic matter, but what proportion of this organic matter is nutritive, and which is fattening, or that which furnishes combustible material. In cold weather, these foods be given which contain the larger proportion of unazotized matters, in order to sustain the heat of the body. Thus it will be seen, that potatoes are good for fattening, but bad for fleshening. Linseed cake contains a great deal of fattening matter, and but little nutritive matter; hence barley-meal, which contains a good deal of albumen, may be advantageously mixed with it. Dumas, a French chemist, states that the principles of fat exist in vegetables, as in hay and maize; and that, like albumen, it is deposited in the tissues unchanged. But Leibig regards fat as transformed sugar, starch, gum, &c. which has undergone a change in the process of digestion. This is why linseed cake is fattening; all the oil is squeezed out of the seed, but the seed-coat—which contains a great deal of gum and the starch of the seed—is left, and these are fattening principles.

The oxygen, introduced by respiration into the lungs, is destined for the destruction of carbonaceous matter; but there is a provision made for taking it into the stomach with the food, and this is done by the saliva. The saliva is always full of bubbles, which are air bubbles, and carry the oxygen of the atmosphere into the stomach with the food. The object of rumination in animals, is the more perfect mixing of the food with the oxygen of the air. This is why chaff should not be cut so short for ruminating, as for non-ruminating animals, as the shorter the chaff is, the less it is ruminated, and the less oxygen it gets.—*Mark Lane Express.*

EXTRAORDINARY COWS.—Mr. Buckminster, Editor of the Massachusetts Ploughman, gives the following account of several remarkable cows, owned by individuals in West Springfield in that State:—

"We learned at West Springfield that a cow, formerly owned by Mr. Palmer, had made 18 pounds of butter in a week. We called on Mrs. P. to learn the particulars of the cow's origin and her keeping. She told us she had actually made 18 pounds from the cow in one week; the pasture was very good, close by her house, and she milked the cow three times a day. In addition to the grass in the pasture, the cow had 2 or 3 quarts of meal each day.

This cow died a year or two ago, whether from the effects of high keeping we could not distinctly learn; two of her calves are now owned by a near neighbor, Deacon Daniel Merrick, who has a large farm and a large dairy.

Another good cow was much talked of in Springfield, owned by Mr. Hitchcock of that town—the report abroad was, that she would yield milk enough for 18 pounds of butter a week. We called on Mr. H. and were informed that he had actually made 16 pounds from the cow in a week, and supplied his family of four persons with milk. He gave the cow regularly one quart of Indian and one quart of rye meal daily. He drove her to Northampton the day before we saw her, and, as we learned, he took the first premium awarded to native cows.

Mr. H. said she was not of the Durham breed, though he thought she had a little of the blood of the bull that was imported more than 50 years ago, by Governor Gore; she had no evident marks of the Durham cattle, and she was not a large cow. Mr. A. Chapin of Springfield, has a yoke of large oxen that are direct descendants from the Gore breed."

In the Northampton Courier, it is stated that a Mr. Ira Tenton, of the town of Belchertown, is the owner of a cow which has given, in one week, 353 lbs. 8 oz. of milk, yielding 12 lbs. 6 oz. butter. The *Wheeling Gazette*, thus notices a cow belonging to Dr. Chaplain of that place. The cow was milked three times a day, and yielded in the months of May and June, for 16 days, upwards of 34½ quarts of milk, and during 2 weeks a record was kept of the amount of butter manufactured from the milk of the same cow, which showed a yield of 29 lbs., an average of 14½ lbs. per week.—*Maine Cultivator.*

PLANT A TREE.—There is no reason why every person who owns a patch of land, should not plant a tree. How much would it add to the beauty, comfort and health of our villages, if the inhabitants would but obey this simple rule. It is true that trees are slow of growth—that they are liable to many accidents, and that the planter may die before enjoying the pleasure of sitting in their shade; but such reasoning after all, furnishes no valid objection to the enterprise, and no one who loves his country, or re-

gards the happiness of his posterity will be influenced by such low and mercenary views. Sir Walter Scott, who had a passion for planting, says, in reference to this subject:

You can have no idea of the exquisite delight of a planter; he is like a painter laying on his colors—at every moment he sees his effects coming on. There is no art or occupation comparable to this; it is full of past, present, and future enjoyment. I look back to the time when there was not a tree here, only bare heath; I look round and see thousands of trees growing up, all of which I may say, almost of which, have received my personal attention. I remember five years ago looking forward, with the most delighted expectation, to this very hour, and as each year has passed, the expectation has gone on increasing. I do the same now; I anticipate what this plantation and that one will presently be, if only taken care of, and there is not a spot of which I do not watch the progress. Unlike building, or even painting, or indeed any other kind of pursuit, this has no end, and is never interrupted, but goes on from day to day, from year to year, with a perpetually augmenting interest.

"ABBOTSFORD," when purchased by the author of "Waverley" was little better than "barren heath." It was one continuous scene of grey hill sides, and barren summits; with scarcely a shrub or tree of any kind to break the monotony of the prospect which spread its desolation and nakedness far around. But how was it changed in a few short years? The hundreds of acres which he had purchased about Abbotsford, he lived to behold covered with a healthy and majestic growth, and while the bright genius which has diffused itself over so many pages, was rapidly soaring to its final enthronement, the mute products of his inimitable taste and patriotism were as steadily striking root and spreading verdure and beauty around his home—*Maine Cultivator*.

Cow Yard.—The place for manure should be contrived so that it should not be exposed to any accumulation of rain water, but should receive the contributions from the sewers of the house, stables, cow-house, &c. The bottom should be paved, so that the drainage of the manure should run into a small cask, or well, adjoining it. Fresh earth should be regularly brought and spread over the manure, and the liquid in the well should be spread over it; by which means the whole compost would be equally rich, and the quantity increased to any extent that could be required; and the gas which arises from the stable manure in the shape of steam or smoke, and which is the very richest part of it, would be kept under and imbibed by the earth so laid on, and the quantity of earth should be proportioned to the strength of the manure with which it is mixed.—*Gardener and Practical Florist*.

Premium Corn Crop.—The following statement is from the Reports of the Kennebec Co. Agricul. Society, published in the *Maine Farmer*:

"The land on which the crop was grown, had been mown eight years in succession, producing, when broken up, about one ton of hay to the acre. In the spring of '43, about 5 cords of manure were spread on and harrowed in: 3 cords of it rotten barn-yard manure, and 2 heap manure. The ground was then furrowed, and the cords of hog-manure, composed of mud or muck, potato tops and weeds, was put in the hill, and mixed with a little dirt: the corn was then dropped and covered. It received two hoeings.

I gathered 75 bushels of sound corn from one acre. The soil is a clayey loam. In addition, I raised about three bushels of beans.

E. C. SNELL.

Winthrop, Dec. 1843.

AULT'S ENGLISH GARDEN SEEDS, &c.



Just received, our usual supply of first rate ENGLISH GARDEN SEEDS, consisting of the various kinds of Peas, Beans, Cabbage, Radish, Onion, Cucumber, Broccoli, cauliflower, Beet, Mangle Wurtzel, Ruta Baga, &c. It is a fact known to every gardener of experience, that first rate English Garden Seeds produce incomparably better crops than can be raised from seeds saved in this climate. This is particularly the case with Peas, Cabbage, Cauliflower, Lettuce, &c. As we receive most of these seeds direct from the growers, who are persons of the first respectability and experience, there is no doubt of their proving as represented. For sale, wholesale and retail, by SAM'L AULT & SON, Corner Calvert and Water sts. Feb. 28.

SUPERIOR RASPBERRIES & OTHER FINE FRUIT.



The subscriber is prepared to furnish his celebrated HUISELER RASPBERRY plants at a reduced price—say at \$6 per 100 plants—they are warranted genuine, and unsurpassed by any other variety known in this country.

He has also a variety of GRAPE VINES of the finest kinds, raised from cuttings.

Likewise a good supply of the large Dutch red CURRANT, and a small but very superior assortment of English GOOSEBERRIES—and a general variety of ROSES, FLOWERING SHRUBS, &c.

JOS. HEUSLER,

Ross street, near the Public School.

Orders can be left with Mr. S. SANDS, at the office of the American Farmer.

PRIZE BULLS AND CALVES.

The subscriber offers for sale two full blood Devon Bulls, which obtained the two first prizes offered for Devon Bulls at the Baltimore County Agricultural Fair, 19th Oct. last, viz.

Richard, 2 years old last spring, \$50
Marmion, 1 ear old last June, 50

Also,

3 full blood Devon Bull Calves, got by the celebrated bull Waverly. They are large and perfectly beautiful. They are 4, 6 and 8 months old at this time. Price \$40 each. Address

JOHN P. E. STANLEY,
50 S. Calvert st. Baltimore.

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JAMES MURRAY'S

PREMIUM CORN AND COB CRUSHERS.

These already celebrated machines have obtained the premium by a fair trial against the other Crushers exhibited at the Fair held at Govanstown, Balt. co. Md. Oct. 18th, 19th and 20th, 1843, and the increased demand enables the patentee to give further inducements to purchasers by fitting an extra pair of grinders to each machine without extra charge. Prices \$25, 30, 35, 40, 45.

Also, small MILLS, which received a certificate of merit, for \$15.

I have also superior CUTTING BOXES, such as will bear inspection by either farmers or mechanics.

Also, Horse Powers, Mills, Corn Shellers, Mill and Carry-log Screws, small Steam Engines, Turning Lathes, &c. &c.

Any kind of Machine, Model or Mill-work built to order, and all mills planned and erected by the subscriber, warranted to operate well.

Orders can be left with J. F. Callan, Washington, D. C.; S. Sands, Farmer office; or the subscriber, no 8

JAS. MURRAY, Millwright, Baltimore.

MURRAY'S CORN & COB CRUSHERS & GRINDERS.

The subscriber having so simplified the construction of the Machine, and having at the same time added to its efficiency, both for the quantity and quality of its work, is now enabled to sell for \$25 Crushers of the capacity of cylinder heretofore sold at 40 dollars—Hand Crushers for 20 dollars—either with or without self-feeders. Any other machines made to order. Also Repairs of all kinds of agricultural implements. These machines can be seen in operation opposite the Willow Grove Farm of Mr. J. Donnell.

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WM. MURRAY.



GREAT IMPROVEMENT IN HUSSEY'S CORN AND COB CRUSHER.

It is believed that the Corn and Cob Crusher invented and manufactured by the subscriber in Baltimore, is taking the lead of all others. Whatever its merits may be, the machine is now pretty well known, and will still be made in its usual form, and kept for sale as heretofore.

The chief design of this advertisement is to introduce to the notice of farmers, a cheaper and in some respects a better article, which has just been completed and proved. It requires much less power, and crushes and grinds much faster than the other.

The price including extra grinders, is \$25
A machine working two sets of grinders, 35
One with three sets for water power, 45

Including extra grinders for each set, all made in a substantial manner, and warranted as advertised. As a recommendation to the late improvement a distinguished stock breeder of this vicinity assures me that it grinds faster, and with less power than my original machine, while the original is highly recommended by C. N. Bement, esq. of Three Hills Farm near Albany, N. Y.

Orders for HEMP CUTTERS and REAPING MACHINES, should be sent to the subscriber as soon as possible, so that none who design having such machines may be disappointed at harvest time.

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OBED HUSSEY.

A SITUATION IS WANTED AS MANAGER

Of a Farm, by a single man, who can produce the best recommendations for his character and skill in all the operations of farming—he would be willing to go to any quarter of the country. A line addressed to X. Q. care of the editor of the American Farmer, Baltimore, will be attended to.

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BALTIMORE MARKET, March 25

Beef, Balt. mess, 8 1/2	Butter, Glades, No. 1, 13a
Do. do. No. 1, 6 1/2	Do. do. 2, 7 1/2
Do. prime, 5 1/2	Do. do. 3, 5 1/2
Pork, mess, 10	Do. Western, 2, 6a
Do. No. 1, 9 1/2	Do. do. 3, 5 1/2
Do. prime, 8 1/2	Lard, Balt. kegs, 1, 6 1/2
Do. cargo, a	Do. do. 2, none
Bacon, hams, Ba. lb, 6 1/2	Do. Western, 1, 6 1/2
Do. middlings, 5 1/2	Do. do. 2, 5 1/2
Do. shoulders, 4 1/2	Do. do. bls, 1, 6 1/2
Do. ast'd, West. 5a	Cheese, casks, 6
Do. hams, 6a	Do. boxes, 5 1/2
Do. middlings, 5a	Do. extra, 12 1/2
Do. shoulders, 4a	

COTTON—	
Virginia, 9a 10	Tennessee, lb, 0
Upland, 10 1/2	Alabama, 11a 12
Louisiana, 11 1/2	Florida, 10a 12
North Carolina, 10a 11	Mississippi

LUMBER—	
Georgia Flooring, 12a 15	Joists & Sc'ling, W.P. 7a 10
Sc. Carolina do, 10a 12	Joists & Sc'ling, Y.P. 7a 10
White Pine, pann' 25a 27	Shingles, W.P. 2a 9
Common, 20a 22	Shingles, ced'r, 3.00a 9.00
Select Cullings, 14a 16	Laths, sawed, 1.25a 1.75
Common do, 8a 10	Laths, split, 50a 1.00

MOLASSES—	
Havana, 1st qu. gl, 30a 31	New Orleans, 24a 25
Porto Rico, 26	Guadaloupe & Mart 26a 28
English Island, 28a 36	Sugar House, 28a 36

SOAP—	
Baltimore white, 12a 14	North'n, br'n & yel. 3 1/2
brown & yell'w, 4 1/2	

TOBACCO—	
Common, 2 a 3 1/2	Yellow, 8 a 10
Brown and red, 4 a 5	Fine yellow, 12a 14
Ground leaf, 6 a 7	Virginia, 4 a 9
Fine red, 6 1/2 a 8	Rappahannock, 3 a
Wrappery, suitable for segars, 8a 13	Kentucky, 13 a 11
Yellow and red, 7a 10	St. Domingo, 15 a 38
	Cuba, 15 a 38

PLASTER PARIS—	
Cargo, pr ton cash 3.12a	Ground per bbl. 1.12a

SUGARS—	
Hav. wh. 100lbs, 9a 10.50	St. Croix, 100lbs 7.00a 8.00
Do. brown, a 7.50	Brazil, white, a
Porto Rico, 7 a	Do. brown, a
New Orleans, 7a 7.50	Lump, lb. c.

FLOUR—We quote	
Superfine How. st., from stores, bl. 4.62a	
Do. City Mills, 4.62	
Do. Susquehanna, 4.62	
Rye, first, 3.25a	
Corn Meal, kiln dried, per bbl. 2.50	
Do. per hhd. 11.25	

GRAIN—	
Wheat, white, p bu 1.10	Peas, black eye, 50a 55
" best Pa. red, 95a 105	Clover seed, store 55.50a
" ord. to pri. Md 85a 102 1/2	Timothy do, 2a 2.50
Corn, white, 45a 46	Flaxseed, rough st. 1.30 a
" yellow Md. 48a 49	Chop'd Rye, 100 lbs. 1.25
Rye, Md. 54a	Ship Stuff, bus. 20a
Oats, Md. 26a	Brown Stuff, 15a
Beans, 100	Shorts, bushel, 10a

FEATHERS—per lb.	
Havana, 7 a 8	Java, lb. 10 a 12
P. Rico & Laguay, 6 1/2 a 8	Rio, 6 1/2 a 8
St. Domingo, 5 1/2 a 6 1/2	Triage, 3 1/2 a 4

RAISINS—Malaga bunch, box, .80a 1.90	
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CANDLES—	
Mould, common, 9a 10	Sperm, 22a 33
Do. choice brands, 10 1/2	Wax, 60a 65
Dipped, 8a 9	

WOOL—	
WASHED.	UNWASHED.
Saxony, Full Merino, 3-4 blood do.	Saxony and Merino, Common, to 1/2 blood, Pulled,
1-2 do do	
1-4 and common, Tub washed,	

and extra wrappery \$11 a \$13.	
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The inspections of the week comprise 276 hhds. Maryland, 39 hhds. Ohio, and 2 hhds. Virginia—to tal, 317 hhds.	
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WHITE TURKIES.	
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A few pairs of these beautiful White Turkeys, so much admired for sale on gentlemen's estates, for sale at this office. 121.	
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GROUND PLASTER.	
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The subscriber is now engaged in the grinding of Plaster of Paris, for agricultural purposes, and would respectfully inform Farmers and dealers that he is prepared to furnish it of the best quality at the lowest market price, deliverable in any part of the city, or on board Vessels free of expense, application to be made at the Union Plaster Mill, near the Glass House, or at the office No. 6 Bowly's Wharf, corner Wood street.	
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P. S. CHAPPELL, or, WM. L. HOPKINS, Agent.	
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VERY SUPERIOR GARDEN SEEDS, (IMPORTED.)	
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The subscriber offers for sale a very superior lot of GARDEN SEEDS, imported direct from England from the best gardeners there, and warranted genuine. They comprise many varieties of Cabbage, Beet, Beans, Peas, Radish, Mangle Wurtzel, Ruta Baga, Cauliflower, Cucumber, and a variety of other kinds. Catalogues at my office.	
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S. SANDS, American Farmer.	
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THE AMERICAN FARMER.

PUBLISHED BY SAMUEL SANDS.

Our correspondent, "J. E. M." is welcome, thrice welcome, to our columns, and not the less so because he takes exception to an opinion advanced by us; for we have lived long enough to know that it is the utmost fallacy in the world for any one to set up the deductions of his own mind or reasoning, as infallible rules for the government of others, and much less has he a right to question the motives of those who view what he may advance in an "questionable a shape" as to "speak" to it. As our long honored correspondent hath the advantage of us in practice, as well as in science, and we are always willing to defer to the lights of his experience, no apology was necessary to excuse him against any suspicion, on our part, that his difference of opinion was induced by the desire to "cavil." He, we should conceive to be the last of men who could be influenced by a motive so invalid, and we pray leave to assure him, that, instead of feeling displeased at his comments, we receive them in that spirit of thankfulness, which the desire to learn never fails to begot in the mind of one who places a just appreciation upon the teachings of a gentleman, like him, whose whole life has been illustrated by a series of exertions to elevate the agricultural character, and promote the prosperity of his kind, by developing the resources of the earth, as a means of adding to human comfort.

In our paper of the 13th instant, in an article on the advantages of the "Subsoil Plough," we concluded with this remark—"and we will add our belief, that subsoiling would be unavailable in any wet soils." This belief it is, that has drawn forth the excellent remarks of our correspondent, "J. E. M." who, speaking from his own experience, controverts the belief thus expressed by us. Our readers will recollect, that in the article alluded to, we remarked, that we desired "what we advanced upon the subject, to be considered merely in the light of opinion, but opinion gathered from no little reflection upon the nature of the thing, and from reading of the effects produced by it (subsoiling) in England, where it had been pursued for some years." And they will recollect also, that so careful were we, of misleading our agricultural brethren, that we emphatically added—"of personal experience we have had none, and can, therefore, only speak of the experience of others." We were thus explicit, but our views might be misconceived, it having been our object through life, to endeavor to do good by pursuing the course which modesty and truth would justify, rather than by assuming the possession of knowledge to which we had no claims whatsoever. We are happy, however, to find that one so competent to decide as is "J. E. M." entertains different views to those which we expressed; and we are willing to believe that, the conclusions to which he has arrived may be justified by the difference which exists in the climate of this country and that of England, as the greater degree of moist weather which prevails there than here, and the greatly reduced power of an English sun to that of an American one, may operate a material difference, both in the powers of absorption of the earth, and in the amount of evaporation of the water which falls thereon. In using the term "wet soils," we so used it, in contradistinction to moist soils; and it is possible, we would have more happily expressed our meaning, had we said, that the good effects of subsoil ploughing would have been measurably decreased upon such soils as were, very retentive of water, to what it would be upon sound dry soils, where the water which fell percolated through the earth and left them open to the drying influence of sun and air. It was our desire to impress the idea upon our readers, that before the full benefit of subsoil ploughing could be obtained, that the additional depth of soil thus opened to the penetration of the rootlets of plants, should

be placed in a situation to be relieved from a superabundance of water. We are aware that the farther you loosen up the earth, the greater chance do you give to the escape of the water which may fall upon it; but still we do think that so long as the *tillth soil* may rest upon a hard pan, almost impervious to the descent of the water, that the superincumbent body must remain in a state, more or less, of supersaturation, unless the *fall, or natural inclination* of the field should ensure the effect of drainage. All the best English and Scotch authorities which we have read, while they admit, to the fullest extent, the advantage to be derived from *subsoil ploughing*, maintain with equal pertinacity, that its maximum of advantages cannot be realized on "*wet soils*," without the addition of thorough draining, as the additional quantity of soil broken up and loosened by the subsoil plough, acts but as a reservoir to receive and retain the water which falls every rain, and presents to the rootlets of plants a bed by no means congenial to their growth and elaboration. But as our esteemed correspondent "J. E. M." assures us, that his experience leads him to different conclusions, we doff our beaver, and are willing to believe that this discrepancy in results in the two countries, arises from the physical causes to which we have before alluded.

CAMBRIDGE, March 16th, 1844.

Mr. Editor:—In your last paper, (March 13th,) in an Editorial, under the article "Sub-soil Plough," having treated the subject very forcibly in its favor, you conclude with some remarks which I apprehend, will not be sustained in theory, or in practice:—you say, "our opinion is, that it would effectually prevent the winter killing of wheat in all *well drained* and *dry lands*—and we will add our belief, that subsoiling would be unavailable in any wet soils."

With the understanding, that I do not take exception to this opinion and belief, for *cavil*, or *controversy*, but, because it is novel to me, and at variance with my preconceived opinions, in regard to the salutary influence of the operation of that instrument; and directly opposed to my conviction of one of the most beneficial effects that I had for many years experienced from the use, not of a sub-soil plough, but of an instrument very similar to it in purpose; though more costly and not so well adapted to accomplish the objects in view: it is for these reasons that I take the exceptions; and to obtain more light on the subject, as well as to correct my impressions, if erroneous.

I had always believed, that one of the chief advantages of this sub-soil plough, was its deep penetration into the sub-soil, without turning it up and weakening the upper or surface-soil by mixture; and thus affording an easy passage to the superfluous water, and at a cheaper rate than the modes usually practiced;—indeed, I believed it would be a good substitute for a mode which I had adopted, of sub-draining by deep and covered trenches, which I have frequently constructed, with much labor, but considerable effect, for that purpose.

The sub-soil plough, I have never used; and if your opinion and belief of it and its effects, be well founded—"that it will only prevent winter-killing in dry land; and that it is unavailable in wet soils,"—I should not consider it worthy of being introduced into agricultural practice. Sub-draining by covered trenches, I have found by experience to be effectual in drying my fields; and without at all interrupting the cultivation. And it is unquestionably, one of the most effectual protections against the winter-killing, or heaving out, as it is called, of wheat that I have ever known. I had hoped that the "Sub-soil Plough" might answer the same purpose for less cost and labor, by opening a loose sub-soil for the passage of the water from the upper: notoriously, the heaving out of wheat by frost, is occasioned by the expansion of the water in the soil, when depressed to the freezing point, whereby the wheat is extruded and killed; and no credit can be attached to an instrument that will prevent the winter-killing of wheat, as you think of the sub-soil plough, only on dry lands, and be unavailable in wet soils.

By means of the "sub-drains," to which I have alluded, the heaving out or winter-killing is in my opinion, effectually prevented by their capillary action, or rather, their action on the capillaries of the soil. The drying effect is seen through a large extent of surface, and more remarkably through a considerable depth; their construction

is more easy of execution than would be imagined, and they will continue for many years unobstructed, when the open ditches require to be annually cleaned out. As it may be desirable to some, I will describe the mode I have adopted to construct them, viz. Open a trench about a foot wide, and as deep as may be necessary;—obtain some oak poles, or other durable wood—cut some of them into short pieces, to lie across the trench for the support of the long poles, which are to be fixed upon them carefully, so as not to leave too large space between them—cover the poles with shavings or cedar brush, and cover these with earth: arrange these shavings and poles so far from the bottom of the drain as to allow a free passage for the water—and from the surface to be secure from the plough. From experience, this will make the most durable and economical defence against the water soakings of lands, and consequently, against the winter-killing of wheat, that I have ever known.

These drains may be sunk much deeper than the vent for their discharge, and seem to act in a manner analogous to that termed endosmosis, by which, mysteriously, the juices of the albumen pass into the heart wood of a tree when their free circulation has ceased, and thus have become clogged and obstructed by the cold season; and this passage is effected without any vascular system or set of tubes discernible in that direction, for its performance.

Excuse a hasty and unfinished paper, as the mail is closing.

J. E. M.

In welcoming our old and valued correspondent and friend, Dr. Magoffin, to our columns again, we must seize the occasion to return him our thanks for his present of *Wine, Corn, Artichokes and Seeds*, the which, in the kindness of his noble heart, he sent us from far off *Alabama*. To be thus cherished in memory by one so distant, upon whom we have no other claims than those which belong to the relations of editor and reader, is as priceless in our esteem as female honor. But why does he now impart to his communings so much of the characteristics of "angel's visits?"—Why are his contributions so "few and far between?" In times of yore he was more prodigal of his dispensations of *light* upon his favorite science—the culture of the earth; never, however, but to win the golden opinions of our readers, and impose upon us the renewed obligations of an abiding gratitude.

We have not yet *uncorked* his genuine juice of the grape, but have no fears when we shall, that it will require a bush to render it acceptable to the palate,—and of this he may be assured,—*uncork* it when we may, we shall remember him, if not in the "flow of soul," at least in the sincerity of the heart. The *artichokes*, by the way, have excited no little curiosity by their hugeness of dimensions—and partaking, as we do, of the general sentiment, our *bump* has not been a little excited to become more familiar with their *culture, product and uses*. Cannot our good friend, Magoffin, gratify us so much as to give us a paper upon the subject. Certain are 'we, that, besides the favor which his compliance with our request, would confer upon us, he would contribute greatly to the pleasure and instruction of every reader of the *American Farmer*.

LAND OFFICE, ST. STEPHEN'S, ALA. }
January 9, 1844. }

Dear Sir,—Some days ago I shipped you two boxes, to be forwarded by James Sands & Co. of Mobile, free of any charge, it being paid by me, containing 3 stalks of corn as they came out of the field, showing the growth of that plant with us. These stalks stood $4\frac{1}{2}$ feet apart, 3 and 4 in the hill, on new land. In the same box, two parts of two stalks from old land, with the ears that came off them, about a foot shorter; the stalks planted in the same way. These stalks were taken out of the ground too early, consequently they have shrunk remarkably; and please to recollect, that owing to an unrivalled bad year for the planting interest and production, no plant or grain in the county is more than *two-thirds* its usual size, so that you see the production of the *worst year*.—Also a specimen of *Rice*, which we raise here on any and every kind of land—and situation. We deem it far superior for table use to the South Carolina. This you can determine.

It has more of the *glutinous* and less of the *watery* principle, and every way *richer* we think—produces luxuriantly—grows $5\frac{1}{2}$ feet in height—straw, if rightly cured, superior forage, especially for sheep and cattle; when put through the cutting box, nothing can be eat with more gratification by all animals—raised with singularly little labor—one plowing and two hoeings. Corn following, it becomes an insurance for a good crop. After cutting the oats it throws out a fine growth of pasture for cows and sheep unrivalled—50 to 100 bushels shell rice to the acre. By putting the stalks of corn together you can see *actually* the growth of corn in this country and climate, making the before mentioned allowance. The rice on being prepared will speak for itself. In the small box you have specimens of two varieties of the sweet potato lately introduced here. The white yam—the inside of which is deemed a great *luxury* after being boiled and a little *steamed*, until a fork will readily pass through them—made into a pudding with rice, &c. they are much esteemed—the *centre white part* only used. Also the red species, vulgarly called *negro killer*, one of the most valuable roots that ever has been introduced into this country, produces astonishingly from cuttings, slips and vines; the last planted as late as August produced the small size, the large planted early. When planted early they are at maturity by July, when we *grub* and feed with them, the roots producing on till October, lay well in the ground, and bear *frost*; a singularly fattening quality—when first dug more resemble in taste the *Irish*, but grow by housing, *sweeter*—always dry and mealy—grow in the *shade* of trees. I plant Irish potatoes in February, dig when at maturity and plant the ground in *negro killers*, and make the largest size. To make the heaviest rice for table use, I drill a piece of well prepared land in rice at $4\frac{1}{2}$ feet on first March—plow with the *Scota* deep on *full moon*, and drill in the centre of the rows, corn, thinning out to 18 inches from stalk to stalk—stick cuttings of the *negro killer*, two between each stalk, or slips, or vines. As soon as the corn will admit, cut it at the ground, and carry out of the field, *cultivating* the ground well with the *hoe* and *plow*. The rice has now great room, and so has the potatoes. We cut the corn in August early. The potato vines keep the ground *moist* and *cool*—essential to the rice—and they both make *heavy* crops.

I also have sent a specimen of Wine, made in October last from the wild grape, (two of them) growing profusely in our woods among trees and bushes. What would they do if cultivated and exposed to the sun? I am trying that point. I have hundreds in *cultivation*. I have requested Mr. Sands & Co. to ship these boxes at my expense entirely.

With sincere regard I am, dear sir,

Yours respectfully, JAMES MAGOFFIN.

[The boxes and contents have arrived, and can be examined at our office.]

"J. S. S." will receive our thanks for the communication which he has forwarded us, as well as for the very appropriate introduction with which he has prefaced it. The receipt of a missive from him is the more welcome, as it recalls to our recollection associations of by-gone days, which are the dearer, as they serve to remind us that the heart which a quarter of a century ago projected the *American Farmer*, is still warmed by its generous love for the pursuits of agriculture, and assures us, that the hand which traced, and the mind which conceived, so many racy and classic articles in other days had, like "old wine," improved by age—that while the one has retained its cunning, the other has, with time, grown in power and force.

HOW TO PRESERVE THE VITALITY OF CUTTINGS FOR GRAFTING.

Mr. Editor,—I have scored the last lines of the accompanying note from Mr. Peirce, persuaded that the hint may be useful in assisting the efforts of public benefactors in their laudable endeavors to disseminate choice fruits through the country.

Let me recommend you to copy from the last Southern Planter a recipe for chills and fevers, omitting the introductory remarks of the communicator. The writer of the letter says, that in a thousand cases he has never known it to fail; and I happen to know that it was completely successful in one which for nine months had resisted every prescription.

NURSERY AT LINNEAN HILL, } March 19th, 1844. }

Mr. J. S. Skinner,—Dear Sir,—Mr. Callan yesterday handed me the cuttings received of Mr. Whittlesey, for which I am under great obligation to you. I regret that there seems to be but little probability that they can be resuscitated—I much fear that vitality is extinct—I have placed them under ground and shall graft them on good size stalks, so as to have fruit from them in two or three years, should they live, of which I have but little hopes. *Would it not be well to wrap cuttings in moist rags, and then envelope the whole in gum elastic to prevent evaporation? This I think would secure easy and incommodious transportation in such cases.*

Yours, &c. JOSHUA PEIRCE.

VALUE OF HORN SHAVINGS AS A MANURE FOR CORN—its mode of operation—an artificial substitute—importance of Urine, Charcoal and Plaster, and the best method of applying them.

We are indebted to Dr. DANIEL LEE, a distinguished member of the New York Legislature, and what is better still, an enlightened scientific and practical farmer, for the following highly interesting letter. The fact which Dr. Lee states, on the authority of the Hon. Mr. Humphrey, in relation to the value of *Horn Shavings* as a fertilizer of the soil, and as a means of increasing the corn crop, is of great and intrinsic value; but not half as much so as the suggestion which he makes of a *substitute* for horn shavings, as the supply of the latter is too limited to render them available to any considerable extent as a manure, while the *substitute* which he proposes, being comprised of human urine, the excretions of domestic animals, charcoal and plaster, renders it obtainable by almost every one. Dr. Lee is correct, in referring the increase in Mr. Humphrey's corn crop to the *ammonia* in the horn-shavings; nor has he discovered less astuteness in ascribing a large portion of its fertilizing agency, to the tardy giving out of the supply of ammonia, owing to the slow process of decomposition, peculiar to such substances, as there can be no doubt that the great object in the growing of plants is, to keep up a continuous and moderate supply of pabulum, excess of nutrient matter being almost as fatal to their growth and the perfection of their fruit, as the total absence of food in the soil.

We bespeak for this admirable letter of Dr. Lee, an attentive reading, and we ask our agricultural brethren to reflect seriously upon the important truths which its results, and reasoning, so obviously would inculcate—truths which should teach us all not only the value of *urine*, but the necessity of resorting to prompt and effectual means to husband every gallon made on our farms. If we would listen to the words of wisdom, all would take instantaneous measures, to so arrange our stables and cow sheds, as to lose none of this active fertilizer. A *trough* placed in the rear of the horses and cattle, if filled with absorbing materials, and sprinkled with plaster or charcoal, or plaster and charcoal mixed together, daily, would not only economise, but prevent the escape of the ammonia, and thus enable the provident husbandman, to manure two acres for every one that he now does; for, to us it is obvious, that there is full as much, if not more *virtue* in the liquid evacuations of our stock than there is the solid matter which they discharge.

But as we do not wish to delay the reader any longer from the instructive letter of Dr. Lee, we must conclude our comments, by returning to that gentleman our sincere acknowledgements for the distinguished favor he has conferred upon us, in making our journal the medium of so important a communication to the public. And while we thus return him our thanks, we may be permitted to indulge the hope, that notwithstanding this is the *first* time he has honoured us, it may not be the *last*; for though he be *personally* a "stranger," his writings have made him an *old acquaintance*, whom we have fondly cherished in our affections; to whom we have looked up as a

benefactor to the cause of husbandry—a cause which we have ever appreciated as the first of national benefactions.

As we have pen in hand, and feel in the proper mood, we must thank him from the depth and breadth of our heart, for a copy of the *Report* which he made to the *New York Legislature*, from the committee on agriculture; and having thus acquitted ourselves of an imperative duty towards him, we will now ask our patrons to *read, digest, and profit* by his letter, which we subjoin:

ALBANY, March 15, 1844.

To the Editor of the *American Farmer*:

DEAR SIR: Although an entire stranger, you have kindly noticed some remarks of mine on various subjects connected with the practice and science of rural economy, for which I desire to make due acknowledgement. If the following suggestions be deemed worthy of the perusal of your readers, they are written for that purpose.

Last Thursday evening we had an interesting agricultural meeting at the Hall of the State A. Society. His honor, the Mayor, FRIEND HUMPHREY, Esq., stated that by the use of a small quantity of horn shavings obtained at a comb factory, and put into each hill of corn on two acres of ground, *very poor* and *sandy*, he had harvested 120 measured bushels of shelled corn. Where none of this remarkable fertilizer was used, the crop did not exceed 15 bushels per acre. Of the correctness of this statement there can be no doubt.—I inquired carefully into the matter as it has an important bearing on some experiments of my own, and on the science of vegetable physiology. This was the material fact in the case: a few pounds of ammonia in horn shavings called into existence on an acre of land an increase of 45 bushels of corn, together with all the extra stalks, leaves, &c. necessary for the perfection of so much grain. How did the horn shavings operate to produce a result so extraordinary, and truly useful?

In the first place, I conjecture that they were decomposed slowly and gave up to the roots of the plant a moderate supply of ammonia for months. This active substance served alike to feed and stimulate the living assimilating organs of the corn, from the first sprouting of the germ to the full maturity of the ear. Had the same quantity of like constituents been placed in the hill when the corn was planted, but in a condition to escape at once, like hartshorn from a smelling bottle, their fertilizing influence would have been next to nothing. But it may well be asked: How can one half ounce of ammonia, or any thing else, produce 100 ounces of living vegetable matter?

It will be borne in mind, that the increase in this instance was from 15 bushels to 60 per acre; and of course the soil contained enough of the elements of corn to yield that small crop without the aid of horn shavings. A ripe dry corn plant contains, I believe, between two and three per cent of nitrogen—the important ingredient in ammonia. A small quantity then of ammonia will suffice. But it has been demonstrated that plants derive a considerable portion of their nitrogen from the air, and not from the soil,—I mean, not from the nitrogen in the atmosphere itself, but from ammonia, nitric acid and the like gaseous matters that contain it, and fall to the earth in dew, rain and snow. It is also worthy of consideration that about 94 per cent of corn plants are composed of the elements of water and carbon; and that a sterile sandy soil contains but a small portion of the carbon necessary to build up a crop of corn equal to 60 bushels per acre. The subject is not without its difficulties. I will, however, venture a solution of the problem, whether satisfactory or otherwise.

The slow decomposition of the horn greatly nourishes the young plant and gives to it the benefit of a larger and longer root, and shortly more of them, than it otherwise would have. This enables it to imbibe more food from even a poor soil, and from a greater distance from the stalk or stem, than it could command without this artificial fertilizer. As a consequence of obtaining a double quantity of nourishment from the soil, its leaves grow to a double size, and of course present to the gaseous elements in the atmosphere, a double surface for drinking in carbonic acid and other necessary ingredients. Now, if the roots being double in number, length and size, or any thing approximating to it, would double the crop from 15 bushels to 30; then the doubling of the length, number, and size of the leaves ought to double the crop from 30 to 60 bushels per acre,—being just the gain actually harvested by Mr. Humphrey. Of course the precise in-

crease in the roots and leaves of corn, is hypothetical. But that a field of corn that will yield 60 bushels per acre has far more roots and leaves, or surface of those bibulous organs, no one will deny.

As a good deal of the nourishment of plants taken up by their roots comes from the atmosphere in falling dews and rains, and also from weighty carbonic acid, it is important to have a light, deep, mellow soil, whatever may be its strength. For, other things being equal, a free soil will allow more and longer roots to grow in it, than one which is hard, shallow and impenetrable.

Every man, however, can not have a comb factory at his door; and it may not be amiss to enquire what is the cheapest and best substitute for horn shavings?

I answer, *human urine and the liquid and solid excretions of domestic animals*. The ammonia, and other volatile elements contained in all these animal matters should be fixed in something like plaster of Paris, charcoal, black vegetable mould, or muck, before they are applied to the soil. Where I reside, charcoal is cheap and can be used to fix the volatile matters in urine and manure to great advantage. It can be applied to the soil before sowing the seed, or as a top dressing to wheat or grass with good effect, without any thing added to it, at from five to 75 bushels per acre. If coal be expensive, ten bushels mixed with one of gypsum and moistened with human urine will form a valuable compost. A small handful of this compound covered in the hill with corn when it is planted, will have an excellent effect. Seed corn soaked in a strong brine of sal-ammoniac and rolled in plaster, will give a better crop for the operation. Urine that is allowed to stand in an open vessel soon loses nearly all its volatile ammonia. It should be applied at once to a heap of fine coal, or the latter should be placed in a tub, barrel, or vat. Not a particle of offensive gas will escape from the coal till it is saturated. A much larger portion of gypsum can be used if it do not cost too much. To raise a crop of corn on poor land, and plow in after harvest, all the crop except simply the kernels of grain, which may be 25 bushels, is a pretty cheap method for renovating a barren soil. This adds a good deal of carbon, and all the salts contained in the ash of the plant except what are in the berry.

All the information I can acquire from foreign publications, the experience of many gentlemen of science, and from my own observation, goes to establish the fact that a large quantity of manure is not essential to good crops, provided the little we use be precisely the matter needed, and in a condition to act rightly upon growing plants.

Yours respectfully,

DANIEL LEE.

LARGE YIELD OF CORN.—MR. SALMON HATHWAY, of Grafton, informs us that last year he raised ninety-two bushels of corn on one acre of ground. The corn was planted three feet apart each way and four stalks only were allowed to stand in each hill. On a quarter of an acre adjoining he raised one hundred and seven bushels of potatoes. He thinks it almost impossible to raise over one hundred bushels to an acre as some have reported to have done.

He spread twenty loads of the best green manure on grass ground, then ploughed it in, and afterwards spread on the surface twenty loads of compost and bushed it, and then rolled it down smooth. The best care was taken of the corn and he thinks he never saw a finer field. But he could not make it count a 100 bushels.

A man must have very good luck as well as very good land to raise a hundred bushels of corn on an acre.

It may have been done, but it would be more economical to plant one acre and a half for a hundred bushels than to put all on one small lot. There is a proper medium to be observed.—*Mass. Ploughman*.

PREVENTION OF MILDEW ON PEACH TREES.—We find the following remedy for mildew on Peach and Nectarine trees, recommended by the sagacious LOUDON.

"Take sulphur and rain or river water, proportions of two ounces of sulphur to every four gallons of water. Put the quantity which may be required into a copper or boiler, and let it (after it commences boiling) boil for half an hour; after which it may be taken out, or suffered to remain until it becomes of a tepid state, when it ought to be applied to the trees by means of a garden engine or syringe as in a common washing with water.—The time for applying it is annually, as soon as the fruit is set and considered out of danger."

From the Farmers' Cabinet.

FOOD FOR CATTLE.

At this time, when the correct principles of farming and feeding, as ascertained by chemical analysis, are a subject of general inquiry, I have thought the following article on "Food for Cattle," would be interesting to the readers of the Cabinet. It appears to me that a far greater value has been attached to some esculents containing a very large portion of water, such as turnips, beets, carrots, potatoes, &c., than they deserve; whilst others, in which the proportions of organic matter are very great, such as peas, beans, oats, barley, wheat-bran, &c., have been too much neglected. It is quite contrary to the received opinion, that 100 lbs. of the skin of wheat,—bran—is as valuable for cattle food, as 100 lbs. of almost any article that can be given to them. But this may account for the observation that we have often heard made, that "miller's horses and hogs are always fat," as they are generally fed liberally on wheat-offal.

J. L.

Milverton, First month 12th, 1844.

Extracted from Dr. Playfair's Lecture, delivered to the members of the Royal Agricultural Society, in December last.

The food of cattle is of two kinds, azotized and unazotized, with or without nitrogen. The following table gives the analysis of various kinds of food of cattle in their fresh state:

	Water.	Organic Matters.	Ashes.
100 lbs. Peas,	16	80½	3½
" Beans,	14	82½	3½
" Lentils,	16	81	3
" Oats,	18	79	3
" Oat-meal,	9	89	2
" Barley-meal,	15½	82½	2
" Hay,	16	76½	7½
" Wheat-straw,	18	70	3
" Turnips,	89	10	1
" Swedes,	85	14	1
" Mangold-wurtzel,	89	10	1
" White carrot,	87	12	1
" Potatoes,	72	27	1
" Red beet,	89	10	1
" Linseed-cake,	17	75½	7½
" Bran,	14½	80½	5

A glance at this table would enable a person to estimate the value of the articles as diet. Thus every 100 tons of turnips contained 90 tons of water. But the value of inorganic or organic matters which these foods contained, differed. Thus Mr. Rham states, that 100 lbs. of hay were equal to 339 lbs. of mangold-wurtzel. It would be seen that that quantity of hay contained 76 lbs. of organic matter, whilst the mangold-wurtzel contained only 34 lbs.

One result on feeding animals on foods containing much water is, that the water abstracts from the animal a large quantity of heat, for the purpose of bringing it up to the temperature of the body, and in this way a loss of material took place. The mode proposed by Sir Humphrey Davy, of ascertaining the nutritive properties of plants, by mechanically separating the gluten, is unsusceptible of accuracy. The more accurate way is, to ascertain the quantity of nitrogen, which being multiplied by 6.2, will give the quantity of albumen contained in any given specimen of food.

The following table shows the equivalent value of several kinds of food, with reference to the formation of muscle and fat, the albumen indicating the muscle-forming principle:

	Albumen.	Unazotized matter.
100 lbs. Flesh,	25	0
" Blood,	20	0
" Peas,	22	51½
" Beans,	31	52
" Lentils,	33	48
" Potatoes,	2	24½
" Oats,	10½	68
" Barley-meal,	14	68
" Hay,	8	68½
" Turnips,	1	9
" Carrots,	2	10
" Red beet,	1½	8½

The analyses in this table, are partly the result of Dr. Playfair's, and Boussingault's analyses. The albumen series indicates the flesh-forming principles, and the unazotized series indicates the fat-forming principles. By comparing this table with the former, it will be seen which

foods contain not only the greatest quantity of organic matter, but what proportion of this organic matter is nutritive, and which is fattening, or that which furnishes combustible material. In cold weather, these foods be given which contain the larger proportion of unazotized matters, in order to sustain the heat of the body. Thus it will be seen, that potatoes are good for fattening, but bad for fleshening. Linseed cake contains a great deal of fattening matter, and but little nutritive matter; hence barley-meal, which contains a good deal of albumen, may be advantageously mixed with it. Dumas, a French chemist, states that the principles of fat exist in vegetables, as in hay and maize; and that, like albumen, it is deposited in the tissues unchanged. But Leibig regards fat as transformed sugar, starch, gum, &c. which has undergone a change in the process of digestion. This is why linseed cake is fattening; all the oil is squeezed out of the seed, but the seed-coat—which contains a great deal of gum and the starch of the seed—is left, and these are fattening principles.

The oxygen, introduced by respiration into the lungs, is destined for the destruction of carbonaceous matter; but there is a provision made for taking it into the stomach with the food, and this is done by the saliva. The saliva is always full of bubbles, which are air bubbles, and carry the oxygen of the atmosphere into the stomach with the food. The object of rumination in animals, is the more perfect mixing of the food with the oxygen of the air. This is why chaff should not be cut so short for ruminating, as for non-ruminating animals, as the shorter the chaff is, the less it is ruminated, and the less oxygen it gets.—*Mark Lane Express*.

EXTRAORDINARY COWS.—MR. BUCKMINSTER, Editor of the Massachusetts Ploughman, gives the following account of several remarkable cows, owned by individuals in West Springfield in that State:—

"We learned at West Springfield that a cow, formerly owned by Mr. Palmer, had made 18 pounds of butter in a week. We called on Mrs. P. to learn the particulars of the cow's origin and her keeping. She told us she had actually made 18 pounds from the cow in one week; the pasture was very good, close by her house, and she milked the cow three times a day. In addition to the grass in the pasture, the cow had 2 or 3 quarts of meal each day.

This cow died a year or two ago, whether from the effects of high keeping we could not distinctly learn; two of her calves are now owned by a near neighbor, Deacon Daniel Merrick, who has a large farm and a large dairy.

Another good cow was much talked of in Springfield, owned by Mr. Hitchcock of that town—the report abroad was, that she would yield milk enough for 18 pounds of butter a week. We called on Mr. H. and were informed that he had actually made 16 pounds from the cow in a week, and supplied his family of four persons with milk. He gave the cow regularly one quart of Indian and one quart of rye meal daily. He drove her to Northampton the day before we saw her, and, as we learned, he took the first premium awarded to native cows.

Mr. H. said she was not of the Durham breed, though he thought she had a little of the blood of the bull that was imported more than 50 years ago, by Governor Gore; she had no evident marks of the Durham cattle, and she was not a large cow. Mr. A. Chapin of Springfield, has a yoke of large oxen that are direct descendants from the Gore breed."

In the Northampton Courier, it is stated that a Mr. Ira Tenton, of the town of Belcherton, is the owner of a cow which has given, in one week, 353 lbs. 8 oz. of milk, yielding 12 lbs. 6 oz. butter. The *Wheeling Gazette*, thus notices a cow belonging to Dr. Chaplain of that place. The cow was milked three times a day, and yielded in the months of May and June, for 16 days, upwards of 34½ quarts of milk, and during 2 weeks a record was kept of the amount of butter manufactured from the milk of the same cow, which showed a yield of 29 lbs., an average of 14½ lbs. per week.—*Maine Cultivator*.

PLANT A TREE.—There is no reason why every person who owns a patch of land, should not plant a tree. How much would it add to the beauty, comfort and health of our villages, if the inhabitants would but obey this simple rule. It is true that trees are slow of growth—that they are liable to many accidents, and that the planter may die before enjoying the pleasure of sitting in their shade; but such reasoning after all, furnishes no valid objection to the enterprise, and no one who loves his country, or re-

guards the happiness of his posterity will be influenced by such low and mercenary views. Sir Walter Scott, who had a passion for planting, says, in reference to this subject:

You can have no idea of the exquisite delight of a planter; he is like a painter laying on his colors—at every moment he sees his effects coming on. There is no art or occupation comparable to this; it is full of past, present, and future enjoyment. I look back to the time when there was not a tree here, only bare heath; I look round and see thousands of trees growing up, all of which I may say, almost of which, have received my personal attention. I remember five years ago looking forward, with the most delighted expectation, to this very hour, and as each year has passed, the expectation has gone on increasing. I do the same now; I anticipate what this plantation and that one will presently be, if only taken care of, and there is not a spot of which I do not watch the progress. Unlike building, or even painting, or indeed any other kind of pursuit, this has no end, and is never interrupted, but goes on from day to day, from year to year, with a perpetually augmenting interest.

"ABBOTSFORD," when purchased by the author of "Waverley" was little better than "barren heath." It was one continuous scene of grey hill sides, and barren summits; with scarcely a shrub or tree of any kind to break the monotony of the prospect which spread its desolation and nakedness far around. But how was it changed in a few short years? The hundreds of acres which he had purchased about Abbotsford, he lived to behold covered with a healthy and majestic growth, and while the bright genius which has diffused itself over so many pages, was rapidly soaring to its final enthronement, the mute products of his inimitable taste and patriotism were as steadily striking root and spreading verdure and beauty around his home—*Maine Cultivator*.

Cow Yard.—The place for manure should be contrived so that it should not be exposed to any accumulation of rain water, but should receive the contributions from the sewers of the house, stables, cow-house, &c. The bottom should be paved, so that the drainage of the manure should run into a small cask, or well, adjoining it. Fresh earth should be regularly brought and spread over the manure, and the liquid in the well should be spread over it; by which means the whole compost would be equally rich, and the quantity increased to any extent that could be required; and the gas which arises from the stable manure in the shape of steam or smoke, and which is the very richest part of it, would be kept under and imbibed by the earth so laid on, and the quantity of earth should be proportioned to the strength of the manure with which it is mixed.—*Gardener and Practical Florist*.

Premium Corn Crop.—The following statement is from the Reports of the Kennebeck Co. Agricul. Society, published in the *Maine Farmer*:

"The land on which the crop was grown, had been mown eight years in succession, producing, when broken up, about one ton of hay to the acre. In the spring of '43, about 5 cords of manure were spread on and harrowed in: 3 cords of it rotten barn-yard manure, and 2 heap manure. The ground was then furrowed, and the cords of hog-manure, composed of mud or muck, potato tops and weeds, was put in the hill, and mixed with a little dirt: the corn was then dropped and covered. It received two hoeings.

I gathered 75 bushels of sound corn from one acre. The soil is a clayey loam. In addition, I raised about three bushels of beans. E. C. SNELL.

Winthrop, Dec. 1843.

AULT'S ENGLISH GARDEN SEEDS, &c.



said in this climate.

Just received, our usual supply of first rate ENGLISH GARDEN SEEDS, consisting of the various kinds of Peas, Beans, Cabbage, Radish, Onion, Cucumber, Broccoli, cauliflower, Beet, Mangle Wurtzel, Ruta Baga, &c. It is a fact known to every gardener of experience, that first rate English Garden Seeds produce incomparably better crops than can be raised from seeds saved in this climate. This is particularly the case with Peas, Cabbage, Cauliflower, Lettuce, &c. As we receive most of these seeds direct from the growers, who are persons of the first respectability and experience, there is no doubt of their proving as represented. For sale, wholesale and retail, by SAM'L AULT & SON, Corner Calvert and Water sts. Feb. 28.

SUPERIOR RASPBERRIES & OTHER FINE FRUIT.



The subscriber is prepared to furnish his celebrated HUISLER RASPBERRY plants at a reduced price—say at \$6 per 100 plants—they are warranted genuine, and unsurpassed by any other variety known in this country.

He has also a variety of GRAPE VINES of the finest kinds, raised from cuttings.

Likewise a good supply of the large Dutch red CURRANT, and a small but very superior assortment of English GOOSEBERRIES—and a general variety of ROSES, FLOWERING SHRUBS, &c.

JOS. HEUISLER,

Ross street, near the Public School.

Orders can be left with Mr. S. SANDS, at the office of the American Farmer.

PRIZE BULLS AND CALVES.

The subscriber offers for sale two full blood Devon Bulls, which obtained the two first prizes offered for Devon Bulls at the Baltimore County Agricultural Fair, 19th Oct. last, viz.

Richard, 2 years old last spring, \$50
Marmion, 1 ear old last June, 50

3 full blood Devon Bull Calves, got by the celebrated bull Waverly. They are large and perfectly beautiful. They are 4, 6 and 8 months old at this time. Price \$40 each. Address JOHN P. E. STANLEY, 50 S. Calvert st. Baltimore.

JAMES MURRAY'S PREMIUM CORN AND COB CRUSHERS.

These already celebrated machines have obtained the premium by a fair trial against the other Crushers exhibited at the Fair held at Govanstown, Balt. co. Md. Oct. 18th, 19th and 20th, 1843, and the increased demand enables the patentee to give further inducements to purchasers by fitting an extra pair of grinders to each machine without extra charge. Prices \$25, 30, 35, 40, 45.

ALSO, small MILLS, which received a certificate of merit, for \$15.

I have also superior CUTTING BOXES, such as will bear inspection by either farmers or mechanics.

Also, Horse Powers, Mills, Corn Shellers, Mill and Carry-log Screws, small Steam Engines, Turning Lathes, &c. &c.

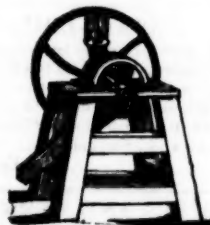
Any kind of Machine, Model or Mill-work built to order, and all mills planned and erected by the subscriber, warranted to operate well.

Orders can be left with J. F. Callan, Washington, D. C.; S. Sands, Farmer office; or the subscriber, JAS. MURRAY, Millwright, Baltimore.

MURRAY'S CORN & COB CRUSHERS & GRINDERS.

The subscriber having so simplified the construction of the Machine, and having at the same time added to its efficiency, both for the quantity and quality of its work, is now enabled to sell for \$25 Crushers of the capacity of cylinder heretofore sold at 40 dollars—Hand Crushers for 20 dollars—either with or without self-feeders. Any other machines made to order. Also. Repairs of all kinds of agricultural implements. These machines can be seen in operation opposite the Willow Grove Farm of Mr. J. Donnell.

fe 14 WM. MURRAY.



GREAT IMPROVEMENT IN HUSSEY'S CORN AND COB CRUSHER.

It is believed that the Corn and Cob Crusher invented and manufactured by the subscriber in Baltimore, is taking the lead of all others. Whatever its merits may be, the machine is now pretty well known, and will still be made in its usual form, and kept for sale as heretofore.

The chief design of this advertisement is to introduce to the notice of farmers, a cheaper and in some respects a better article, which has just been completed and proved. It requires much less power, and crushes and grinds much faster than the other.

The price including extra grinders, is \$25
A machine working two sets of grinders, 35
One with three sets for water power, 45

Including extra grinders for each set, all made in a substantial manner, and warranted as advertised. As a recommendation to the late improvement a distinguished stock breeder of this vicinity assures me that it grinds faster, and with less power than my original machine, while the original is highly recommended by C. N. Bement, esq. of Three Hills Farm near Albany, N. Y.

Orders for HEMP CUTTERS and REAPING MACHINES, should be sent to the subscriber as soon as possible, so that none who design having such machines may be disappointed at harvest time.

fe 21

OBED HUSSEY.

A SITUATION IS WANTED AS MANAGER

Of a Farm, by a single man, who can produce the best recommendations for his character and skill in all the operations of farming—he would be willing to go to any quarter of the country. A line addressed to X. Q. care of the editor of the American Farmer, Baltimore, will be attended to. de 6 3*

BALTIMORE MARKET, March 25

Beef, Balt. mess, 8a3	Butter, Glades, No. 1, 13a
Do. do. No. 1, 6a7	Do. do. 2, 7a11
Do. prime, 5a5.50	Do. do. 3, 5a7
Pork, mess, 10	Do. Western, 2, 6a
Do. No. 1, 9a9	Do. do. 3, 5a6
Do. prime, 8a8	Lard, Balt. kegs, 1, 6a7
Do. cargo, a	Do. do. 2, none
Bacon, hams, Balb, 6a7	Do. Western, 1, 6a7
Do. middlings, 5a5	Do. do. 2, 5a5
Do. shoulders, 4a	Do. do. bls, 1, 6a6
Do. asst'd, West. 5a	Cheese, casks, 6
Do. hams, 6a	Do. boxes, 5a8
Do. middlings, 5a	Do. extra, 12a15
Do. shoulders, 4a	

COTTON—	Tennessee, lb. 0
Virginia, 9a10	Alabama, 11a12
Upland, 10a11	Florida, 10a12
Louisiana, 11	Mississippi
North Carolina, 10a11	

LUMBER—	Georgia Flooring, 12a15
Joists & Sc'ling, W.P. 7a10	
S. Carolina do, 10a12	Joists & Sc'ling, Y.P. 7a10
White Pine, pann'l 25a27	Shingles, W.P. 2a9
Common, 20a22	Shingles, ced'r, 3.00a9.00
Select Cullings, 14a16	Laths, sawed, 1.25a 1.75
Common do, 8a10	Laths, split, 50a 1.00

MOLASSES—	New Orleans, 24a25
Havana, 1st qu. gl, 30a31	Guadaloupe & Mart 26a28
Porto Rico, 26	Sugar House, 28a36
English Island, 26	

SOAP—	Baltimore white, 12a14
North'm, br'n & yel, 3a4	
Brown & yel'w 4a5	

TOBACCO—	Common, 2 a 3
Yellow, 8 a 10	
Brown and red, 4 a 5	Fine yellow, 12a14
Ground leaf, 6 a 7	Virginia, 4 a 9
Fine red, 6a 8	Rappahannock, 3 a
Wrappery, suitable for segars, 8a13	Kentucky, 13 a
Yellow and red, 7a10	St. Domingo, 15 a38
Cuba, 15 a38	

PLASTER PARIS—	Cargo, pr ton cash 3.12a
Ground per bbl. 1.19a	

SUGARS—	Hav. wh. 100lbs 9a10.50
St. Croix, 100lbs 7.00a8.00	
Do. brown, a7.50	Brazil, white, a
Porto Rico, 7 a	Do. brown, Lump, lb. c.
New Orleans, 7a7.50	

FLOUR—We quote	Superfine How. st., from stores, bl. \$4.62a
Do. City Mills, 4.62	
Do. Susquehanna, 4.62	
Rye, first, 3.25a	
Corn Meal, kiln dried, per bbl. 2.50	
Do. per hhd. 11.25	

GRAIN—	Wheat, white, p bu 1.10
Pens, black eye, 50a55	
best Pa. red 95a105	Clover seed, store \$5.50a
Timothy do 2a2.50	good \$4 a \$6.
Corn, white, 45a46	Flaxseed, rough st. 1.30 a \$12. Ohio
yellow Md. 48a49	Chop'd Rye, 100 lbs. 1.25
Rye, Md. 54a	Ship Stuff, bus. 20a
Oats, Md. 26a	Brown Stuff, 15a
Beans, 100	Shorts, bushel, 10a
	29a

FEATHERS—per lb.

COFFEE—	Havana, 7 a 8
Java, lb. 10 a12	
P. Ricoa Lagay, 6a 8	Rio, 6a8
St. Domingo, 5a 6	Triage, 3a 4
RAISINS—Malaga bunch, box, .60a1.90	

CANDLES—	Mould, common, 9a10
Sperm, 32a33	
Do. choice brands, 10	Wax, 60a65
Dipped, 8a 9	

WOOL—

WASHED.	UNWASHED.
Saxony, Full Merino, 3-4 blood do. 1-2 do do 1-4 and common, Tub washed,	Saxony and Merino Common, to 1 blood, Pulled,

and extra wrappery \$11 a \$13. The inspections of the week comprise 276 hds. Maryland, 39 hds. Ohio, and 2 hds. Virginia—total, 317 hds.

WHITE TURKIES.
A few pairs of those beautiful White Turkeys, so much admired for sale at this office. ad 21

GROUND PLASTER.

The subscriber is now engaged in the grinding of Plaster of Paris, for agricultural purposes, and would respectfully inform Farmers and dealers that he is prepared to furnish it of the best quality at the lowest market price, deliverable in any part of the city, or on board Vessels free of expense, application to be made at the Union Plaster Mill, near the Glass House, or at the office No. 6 Bowly's Wharf, corner Wood street. P. S. CHAPPELL, or. Jan. 3. WM. L. HOPKINS, Agent.

VERY SUPERIOR GARDEN SEEDS, (IMPORTED.)

The subscriber offers for sale a very superior lot of GARDEN SEEDS, imported direct from England from the best gardeners there, and warranted genuine. They comprise many varieties of Cabbage, Beet, Beans, Peas, Radish, Mangle Wurtzel, Ruta Baga, Cauliflower, Cucumber, and a variety of other kinds. Catalogues at my office. fe 28 S. SANDS, American Farmer.

FARMERS! LOOK AT THIS!—Just arrived, per schooner Millicent, a large lot of **PLOUGHS AND CASTINGS**, among them the Wiley, and Minor & Horton Ploughs of the N. York metal and manufacture, which cannot be surpassed. There are all sizes, from a one-horse plough up to a four horse Plough.

Also a first rate Dirt Scraper, which will be sold low by
JAMES HUEY & CO.
mh 27 3t* No. 7 Bowly's wharf, Baltimore.

A. G. MOTT,
Corner Ensor & Forest streets, Old Town, Baltimore,
Sole agent for the sale of the
Boston Centre-draught Plough, "Prouly & Mears" self-sharpening Patent.

CASTINGS for the different sizes always on hand. mh 27

BEE-ROOT CULTURE FOR SUGAR.

Important Information to Land-Owners.

The advertiser offers his services to persons desirous of greatly increasing the value of their farms, in making excellent Sugar from beets, by an improved method by which a first rate article, and very great profit is returned. (without any risk) from 50 to 100 or more acres of good land, especially if sandy, marl or deep loam. The advertiser, who is a man of years and great experience, will either undertake the entire management of tillage, and manufacturing the crop into sugar, and other articles in constant demand, for the proprietor, for a share of the profits, or at a salary for a term; or he will pay a very liberal rent for the premises—and also pay twelve per cent. interest on the amount of capital requisite to be invested by the proprietor for manufacturing the crop on the premises. A comfortable dwelling house, with outbuildings, in a salubrious district is requisite and near a good road and market town. Direct, postage free, with real name and address to T. W. at Mr. Roset's, 184 N. Gay st. mh 27 3t*

FARM MANAGER WANTED.

An industrious single man, who is a thorough bred Farmer, and who would be willing to make himself useful, and is capable of directing and managing advantageously, may hear of a desirable situation on a Farm completely stocked, situated within 6 miles of this city.

Satisfactory recommendation as to character, capacity, sobriety, and industry, will be required. Applications may be made to Saml. Sands, at the office of the American Farmer, personally, or by letter if the postage is paid. mh 20 3t

GARDENER WANTED.

The advertiser wishes to employ a Gardener on his estate, near the city of Washington—a single man, or if married, without children, and his wife capable of taking charge of a dairy would be preferred. He must be capable, honest, sober, and of an obliging disposition, and it is unnecessary to make application unless thus recommended. The situation will be found a desirable one—a comfortable home, and permanent as long as he chooses. Reference can be made to Saml. Sands, at the office of the Farmer. mh 20 3t

POUDRETTE

Of the very best quality for sale. Three barrels for \$5, or ten barrels for \$15—delivered free of cartage by the New York Poudrette Company, 23 Chambers street, New York. Orders by mail, with the cash, will be promptly attended to, and with the same care as though the purchaser was present, if addressed as above to D. K. MINOR, Agent.

*Planters who have ordered Poudrette through the subscriber, for their tobacco plants, are informed that it will be ready for delivery in a day or two, and are requested to give directions (where it has not been done,) to whom it shall be consigned.

Those wishing to try it this spring had better send their orders immediately, addressed to
SAML. SANDS,
mh 20 office of the Farmer, Baltimore st.



PEACH AND PEAR TREES.

CATALOGUE OF VERY CHOICE SORTS OF FRUIT TREES.

For sale, raised on the farm of a gentleman near this city, who has selected them with much care from a great many varieties.

PEACHES.

FREE STONES.		CLING STONES OR PAVIES.	
No.	Ripe.	No.	Ripe.
3 Soft Heath,	Sep. 20 to 25	1 Bourdine,	Oct. 1 to 10
20 Baltimore Beauty,	Aug. 5 to 10	6 Early Newington,	Aug. 20 to 25
22 Belle de Vitry,	Sep. 15 to 18	13 French Mercator,	Aug. 25 to 28
24 Red Magdalen,	Aug. 18 to 20	17 Kennedy's Carolina,	Sep. 18 to 23
28 Columbia,	Sep. 20 to 24	21 Washington,	Sep. 20 to 25
29 Oldmixon,	Aug. 25 to 30	26 Red Preserving,	Sep. 20
34 Veto,	Sep. 26 to 28	27 Heath,	Sep. 20 to 25
38 Troth's Early Red,	Sep. 5 to 10	42 Algiers,	Oct. 10 to 15
41 Belgarde,	Sep. 8 to 12	43 Large Morissania,	Sep. 23 to 28
51 Monstrous Free,	Sep. 15	72 Old Newington,	Sep. 10 to 15
58 Lady Washington,	Aug. 22 to 25	84 Orange Cling,	Sep. 15 to 20
59 Yellow Alberg,	Sep. 20	87 Parie Admirable,	Sep. 25 to 30
60 Nectarine Peach,	Sep. 25 to 28	92 Red Rover,	Sep. 1 to 5
62 Red chb. Malagatune,	" 12 to 18		
66 Yellow Rose,	Sep. 24 to 28		
70 Canary,	Aug. 15 to 20		
73 Snow Ball, or White Magdalen,	Aug. 20 to 30		
86 Orange Free Stone,	Sep. 18 to 25		

Peach Trees 15 cts. each.

Pear grafted on quince stocks, 37 1/2 cts. in free stocks 50 cts.

Plum and Apricot Trees 50 cts. each Apple Trees 25 cts. each.

Cherry 50 cts.

*Orders received by S. SANDS, at the office of the American Farmer. mh 13

THE BOMMER MANURE METHOD.

We wish to afford every facility to the introduction of this method, as the better it is known the higher it will be esteemed. If farmers who are living in a neighborhood will club together, we will offer them the following inducements to purchase, viz. To any club of Five ordering the method to one address, we will make a deduction of 15 per cent. To a Club of Ten, 20 per cent. reduction, and to larger clubs, a still larger discount upon our established rates for single methods, which are as follows:

For a garden up to 20 acres,	\$5
" 100 acres arable land,	10
" 200 " "	15
" 300 " "	18
" 400 " "	20
Unlimited number of acres,	25

*Purchasers of a smaller right can at any time increase it by paying the difference in price. ABBETT & CO.

Southern proprietors of the Patent Right, at Parsons & Preston's Book Store, adjoining the Rail Road Depot mh 13 if in Pratt street, Baltimore.

*Those who find it more convenient, can leave their orders with S. SANDS, at the office of the American Farmer, who will promptly attend thereto. mh 13

R. SINCLAIR, Jr. & CO.

Agricultural Implement Manufacturers, Nursery & Seedsmen, No. 60 Light street,

Offer for sale a large and superior assortment of **GARDEN SEEDS**, received by the recent arrivals from Europe, and from their Seed Gardens near this city. Also in store,

FIELD SEEDS, viz. red and white Clover, Trefoil, Lucerne, Ray Grass, Vetches, Herds Grass, Ky. Blue Grass, Orchard Grass, Meadow Oat Grass, Sugar Beet, Mangel Wurtzel, Cow Peas, Beans, Corn, Early Potatoes, &c.

PLOUGHS—The most prominent of which are the DOLPHIN SELF-SHARPENING & WHEEL, of late invention; Winans', Beache's, Pierce's, and Prouly & Co's self-sharpening—Sub-soil, three-furrow, Davis' and Davis' improved—Wiley's and many other valuable sorts. Also,

HARROWS AND CULTIVATORS—Of many forms and patterns for cultivating Corn, Tobacco, Cotton, &c. Their stock of **AGRICULTURAL MACHINERY** is large and consists principally of the following, viz. Corn Mills, Corn and Cob Crushers and Shellers for manual and horse powers, Threshing Machines, Vegetable Cutters, Churns, Horse Rakes, Lime Spreaders, Sugar Mills, Rollers and Horse Scoops.

GARDEN, FARMING & HARVEST TOOLS—The assortment of these is general, and embraces all the most valuable, new and useful kinds.

BOOKS—Treating on Agriculture, Gardening, management of Stock, Poultry, Bees, &c.

FRUIT & ORNAMENTAL TREES & PLANTS—supplied from Sinclair & Corse's Nurseries near this city, whose stock of trees and their constant personal attention to this department warrants to purchasers, articles of prime quality and 'true to marks'. *Priced Catalogues furnished gratis, containing description of implements, directions for planting trees, management of seeds, &c. ma 6

ROBT. SINCLAIR, Jr. & CO.

LIME—LIME.

The subscriber is now prepared to furnish from his depot at the City Block, Baltimore, **ALUMSTONE LIME** of the purest description, deliverable at any point on the Chesapeake bay or its tributaries, at such prices as cannot fail to please.

He is also prepared to furnish superior building Lime at 25 cents per bushel, in hds. or at \$1 per bbl. E. J. COOPER, aug 30 City Block, Baltimore.

HORSE POWERS AND CORN CRUSHERS.

The subscriber has for sale the above implements which he can recommend to all purchasers as being **SUPERIOR ARTICLES**. They are made with a view to strength, durability and efficiency, possess great power, are constructed upon the very simplest principles of mathematical exactitude, and are calculated to do as much work as the largest farmer can desire, and being free from complication, are not easily put out of order, and easy of repair. For proof of their intrinsic value, the subscriber refers to the following certificate from one of our most intelligent practical farmers, who combines with a knowledge of farming that of machinery, and is every way competent to pass a correct judgment.

GEORGE PAGE, Machinist,
West Baltimore st. Baltimore.

Orders and letters of inquiry, POST PAID, will be promptly attended to. feb 14

I hereby certify that I was one of the committee on Agricultural Implements and Machinery at the last fair of the Baltimore Co. Agricultural Society—that I attended the first day of examination but not the last: that after a full and fair examination of all the other machines of similar kinds, and an interchange of opinions among the judges, it was determined by a vote of 4 out of the 5 judges, to give Mr. GEORGE PAGE the first premium on his CORN and COB CRUSHER and HORSE POWER, they each being considered very superior, both in power and operation, as well as durability to any others on the ground. It was universally admitted, that the Corn and Cob Crusher could do twice as much work as any other machine of the kind on the ground—and I must confess, that I was both mortified and surprised, to find by the award of my co-judges, that they had changed their opinions after I left, and it had been agreed upon to award the above premiums to Mr. PAGE by so decided a vote as 4 to 1, that they should afterwards change that determination after I had left without consulting me is a like matter of surprise and mortification. ASHER LINTHICUM, Jr.

MARTINEAU'S IRON HORSE-POWER IMPROVED

Made less liable to get out of order, and cheaper to repair, and at less cost than any other machine.

The above cut represents this horse-power, for which the subscriber is proprietor of the patent-right for Maryland, Delaware and the Eastern Shore of Virginia; and he would most respectfully urge upon those wishing to obtain a horse power, to examine this before purchasing elsewhere; for beauty, compactness and durability it has never been surpassed.

Threshing Machines, Wheat Fans, Cultivators, Harrows and the common hand Corn Sheller constantly on hand, and for sale at the lowest prices.

Agricultural Implements of any peculiar model made to order as the shorest notice.

Castings for all kinds of ploughs, constantly on hand by the pound or ton. A liberal discount will be made to country merchants who purchase to sell again.

Mr. Hussey manufactures his reaping machines at this establishment.

R. B. CHENOWETH,
corner of Front & Ploughman sts. near Baltimore st. Bridge, or No. 20 Pratt street. Baltimore, mar 31, 1841

PORTABLE TUBULAR STEAM GENERATOR.

The undersigned successors to the late firm of Bentley, Randall & Co. are manufacturing, and have constantly on hand a full assortment of the above Boilers, which within the last few months have undergone many improvements: we can now with confidence recommend them for simplicity, strength, durability, economy in fuel, time, labor and room, to surpass any other Steam Generator now in use. They are equally well adapted to the Agriculturist for cooking food for cattle and hogs, the Dyer, Hatter and Tanner for heating liquors, to Manufacturers (both Cotton and Woollen) for heating their mills, boiling sizing, heating cylinders, &c. to Pork Butchers for heating water for scalding hogs and for rendering lard, to Tallow Chandlers for melting tallow by circulation of hot water (in a jacket,) to Public Houses and Institutions for cooking, washing and soap making, and for many other purposes, for all of which they are now in successful operation; the economy in fuel is almost incredible; we guarantee under all circumstances a saving of two thirds, and in many instances fully three fourths—numerous certificates from the very best of authority can be produced to substantiate the fact. We had the pleasure of receiving the premium for the best Steam Apparatus at the Agricultural Fair held at Govanstown in October 1843.

Manufactory, McCausland's old Brewery, Holliday st. near Pleasant st., Baltimore, Md.

RANDALL & CO.

Dec. 6. 4f

FARMERS! EXAMINE FOR YOURSELVES!

The well selected stock of Implements belonging to JAMES HUEY & CO. No. 7 Bowly's wharf, Baltimore. Our stock consists of a large lot of PLOUGHS, SHEARS, POINTS, and CULTIVATORS, which we will sell low to suit the times—among which rank the economical WILEY, and the MINOR & HORTON PLOUGH of the N York composition metal and manufacture—the share has a double point and edge, equal to two shares and points. We keep on hand all kinds of PLOUGHS, premium CORN SHELLERS, HAY & STRAW CUTTERS, Corn & Cob CRUSHERS, Horse RAKES, Corn and Tobacco HOES. *Farmers and Planters on the Eastern and Western Shores may send their orders with confidence, as they will be attended to with promptitude. We also keep GARDEN & FIELD SEEDS. Thankful for past favors, we hope to merit a continuance of the same. Agents for the above implements, S. L. STEER, Market st. near the corner of Paca, Baltimore E. & W. BISHOP, Bel-air market, Baltimore. fo 28

PLOUGHS & PLOUGH CASTINGS.

AT WHOLESALE AND RETAIL.

300 ready made PLOUGHS, and 45 tons PLOUGH CASTINGS, on hand, which have been made with great care and of the best materials.

The variety are Gideon Davis' improved Ploughs of all sizes, with both cast and wrought shares, and with intermediate sizes for cast shares only.

King's Connecticut improved by myself with wrought and cast shares; they throw a wider furrow than the Davis ploughs.

My own patent self sharpening Cleazy Plough; these I recommend as a superior plough in every respect, and easily kept in order.

Bar share and Coulter Plough, also hill-side and double mould Ploughs, together with a general assortment of Agricultural Implements, Straw Cutters, Corn Shellers, Wheat Fans, Horse Powers, Threshing Machines, &c. &c. which he will recommend to be as good as can be obtained at any other establishment in this country, and which he is selling at very reduced prices.

Also in Store, Landreth's SUPERIOR GARDEN SEEDS, a fresh supply just received.

JONATHAN S. EASTMAN,

Pratt street, between Charles and Hanover sts.

fo 28

BALTIMORE CO. AGRICULTURAL SOCIETY.

At the annual meeting of the Society held at Govanstown, on the 20th day of October, 1843, the following resolution was adopted:

"Resolved, That such counties of Maryland as may form societies auxiliary to this, shall on the payment of fifty dollars to the Treasurer of this society, be admitted on equal terms as regards competition for premiums, if in the opinion of the Executive Committee, such an arrangement shall appear to be expedient."

The Executive Committee at a meeting held in Baltimore, Dec. 25d, 1843, having fully concurred in the above resolution, do cordially invite the farmers of the counties of the state to form auxiliary societies, and become competitors for premiums offered by this society.

JOHN B. H. FULTON, Rec. Sec.

jan 10